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THE JOURNAL OF THE
CANADIAN
DENTAL
ASSOCIATION



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DE L'ASSOCIATION
DENTAIRE
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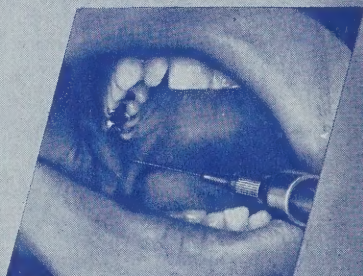
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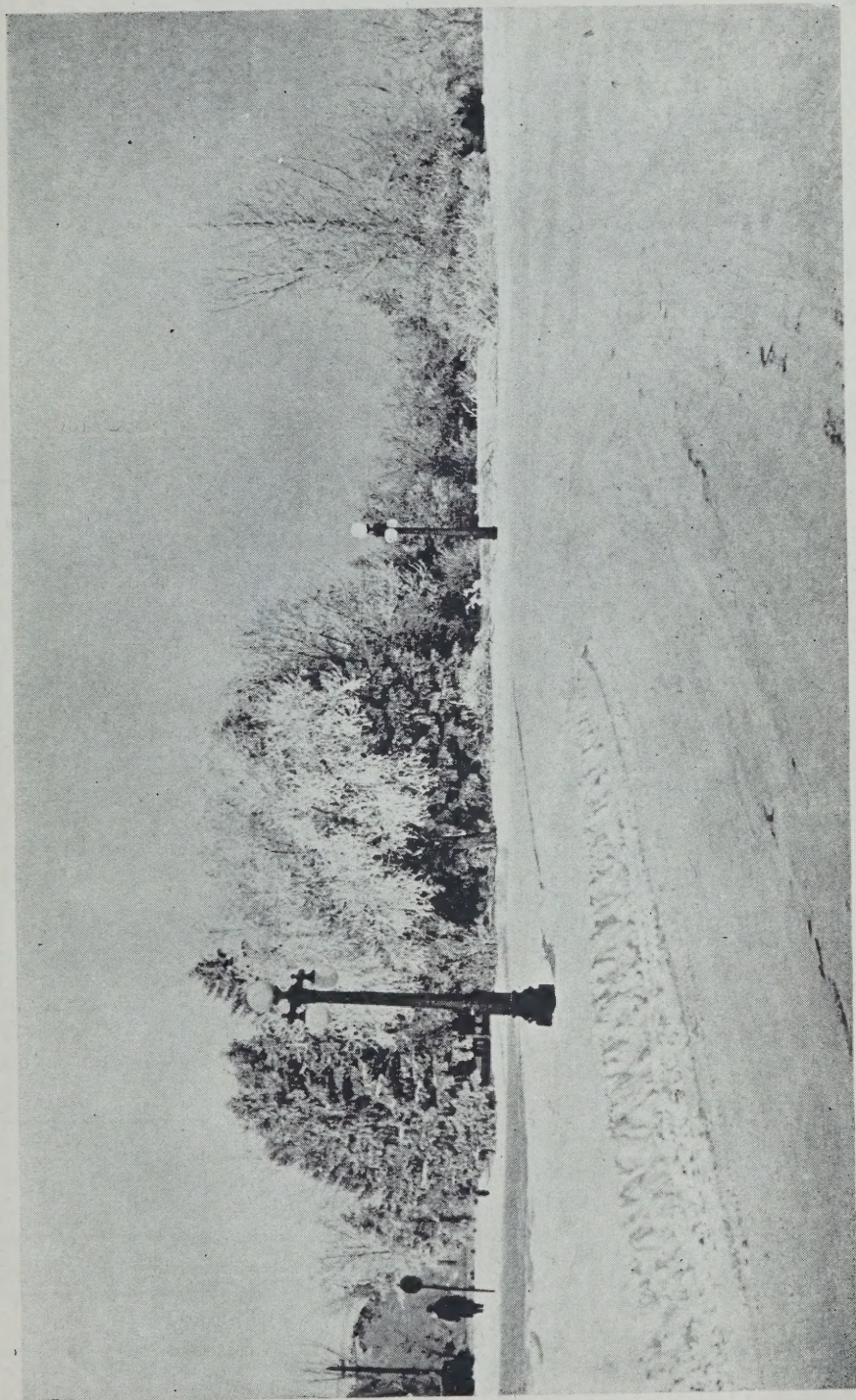
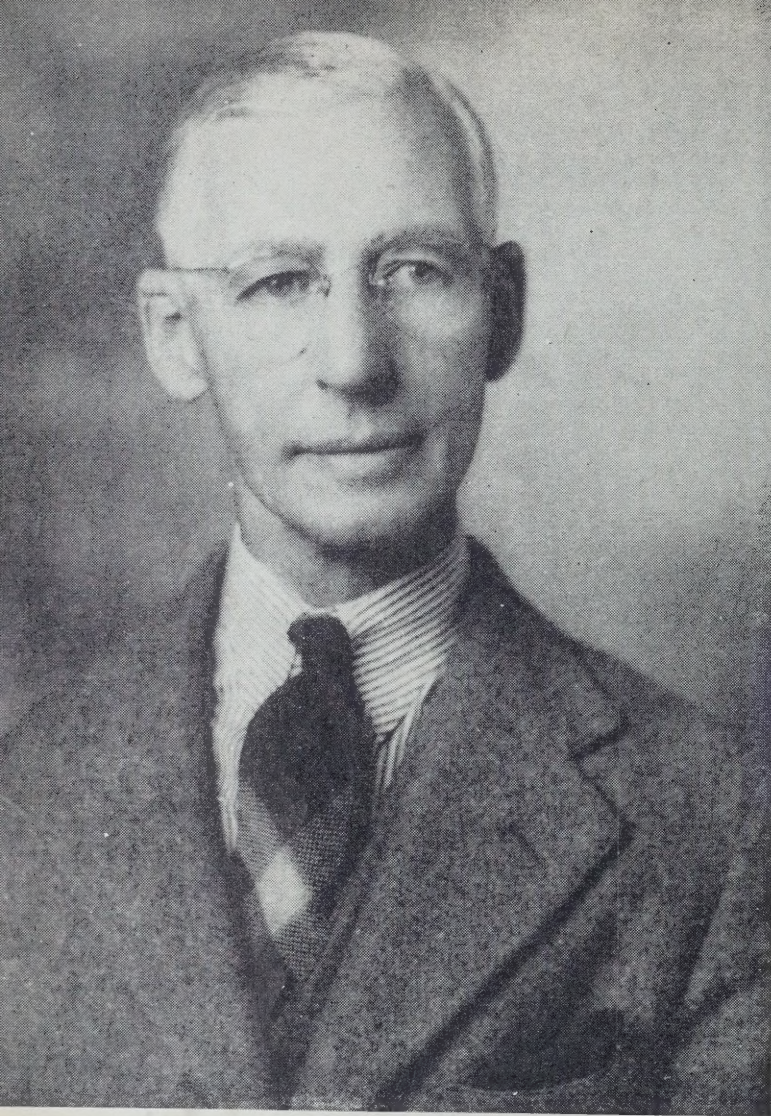


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A WINTER SCENE IN REGINA



WARREN C. OXNER, D.D.S.
Halifax, Nova Scotia

Past President and Secretary, Halifax Dental Society.

Past President Nova Scotia Dental Association.

For years dentist to Children's Hospital, now Consultant.

Many years a member of the Nova Scotia Dental Board.

Representative, Dominion Dental Council. President in 1938.

Professor, Crown and Bridge and Ceramics, Faculty of Dentistry,
Dalhousie University.

Associate Editor for Nova Scotia, Journal of the Canadian Dental
Association.

The Journal

OF THE CANADIAN DENTAL ASSOCIATION

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NO. 1

An Approach to Present Day General Practice*

by RALPH R. DALGLEISH, D.D.S., Sydney, N.S.

ANY dentist who has lived, as an adult, through that period between the two great wars, realizes that during that time the whole picture of life has changed. Out of that period of flux have evolved such advances, scientific and otherwise, as to almost dwarf those of all preceding years of history. Rather than point to aviation, the radio, the automobile, and such things that have made positive strides, try to point to something where there has not been a big advance and change, and you can hardly find it.

With pride, we know that the profession of dentistry has kept well to the front in this march of progress—scientifically. A study of the advances in dentistry in the last twenty-five years would show an amazing increase in knowledge available, tremendous improvements in existing techniques, evolution of many new methods, plus an array of new materials and armamentarium, which have truly raised the possible standards of dentistry to undreamed of heights.

Parallel to this scientific progress has been a change in the economy of the country, somewhat associated with the questionable necessity of everyone owning a car, an expensive radio, an electric refrigerator; and instalment

buying, which was a natural sequence if such luxuries were to be obtained.

Our whole standard of life has changed, and the more general spread of knowledge to a greater number of people applies to everything you can mention, including dentistry.

I question whether the economic side of dentistry has kept pace. Years ago dentists carried on a practice, which knowledge, techniques, and materials held at one certain limited standard, available to a limited number of people; the rich paid what they could be induced to pay, and the poor what we thought they could pay for the same service. We inherited this system of fees from the medical profession, and it had its birth at a time when the contents of the Doctor's bag were the sum total of the armamentarium necessary to render (with the owner's knowledge and craft) complete medical service as known at that time. The association of money or business with professional thought was considered repulsive, and professional men collected a small percentage of their fees.

Times have changed. Caught in the machinery of a fast moving world, the members of the profession, still clinging to a 1915 concept of professionalism, find themselves forced to live

*Presented before the New Brunswick Dental Society, Saint John, September, 1944.

in a new era where everyone, except themselves (and those of one or two other learned professions) gets paid promptly and fully for what they do; very often with provision for illness and old age.

We run to extremes; very often the greatest professional men are the poorest business men, and conversely the good business dentists are not always good dental surgeons. In the last few years, in an effort to bolster the business side of dentistry, systems have been developed, very often from outside the profession, which frequently had the tendency to throw us to the opposite extreme again.

If you are lucky enough to have a high-class practice, or if your clientele is composed of all the middle-class, or even if you practise in a very poor section, your problem is simple; you do practically one class of dentistry, and get paid accordingly. But your chance of a rich clientele is diminishing (even by the law of averages) if not by economics. What we face today in Canada is the fact that 95% of general practitioners are located where they have to cater to a large percentage of the poorer class, a smaller number of the better class or more fortunate, and very few who can be classed as wealthy. With the tremendous knowledge of medicine that is being made available to all classes of humanity, by radio, magazines, newspapers, colleges, schools, etc., there has developed not only the desire that dentistry be made available to all groups, but the demand is actually being made, and increasing yearly. So at the present time, when one hundred per cent of the people want dentistry, and we have a variety of techniques, knowledge and materials to grade the type of dentistry to be supplied, from the 'haves' to the 'have-nots', why not supply 'custom-built' dentistry (a varying type of dentistry for everyone at a price they, individually, can pay).

A CLASSIFICATION OF PATIENTS

To develop the thought, let us be business men long enough to study the

earnings of our people, the people who become our patients. If you will refer to the left column of the chart it will amaze you to realize that so many earn so little and so few earn a lot. Now I concede that in the rendering of services, such as simple operative treatment, extractions, radiograms, etc., you cannot and should not vary that service, but I have been able, to my own satisfaction, over a period of years, with the variety of techniques, materials and armamentarium at hand, to develop five arbitrary and variable classes of dentistry, which apply equally arbitrarily and flexibly to the five classes of wage earners. (See right hand column of chart).

Of course no one could be classified exactly by what he actually earns even if we knew it, because marital status, number of children, other dependents, etc. would vary a person's status considerably; but if after making allowances for these factors we again gave thought to size and number of automobiles owned, pretentiousness of dwelling, club memberships, and general attitude to luxuries and life in general, any dentist could classify his patient with exceptional accuracy.

CLASSIFICATION OF DENTISTRY

Now what is Standard Dentistry? It is variable to the individual operator, much like the orthodontist's conception of normal. Here again we run to extremes; on the one hand we have the man who cannot see his work below a standard set, say by luxury dentistry, and more power to him, provided he puts that class only where it belongs and never renders such service to patients where neither their teeth nor anything else about them is in the luxury class. On the other hand, we have the man who cannot get above the very ordinary class of dentistry, perhaps the small town practitioner, with keen competition and few well-to-do patients who can afford more than very ordinary service and who, because perhaps ninety per cent of his work must be in that class, cannot get above it for the other ten per

[illegible]

to get below unless forced to do so. The public's knowledge of everything is so great at present, that it is questionable whether varying fees for the same service is wise or correct, particularly in small communities; and so in our classification, of our prosthesis particularly, the fee charged in various classes of work is associated with something the patient definitely under-

stands. In the small community the idea of charging varying fees for x-rays and extractions is contra-indicated.

I am convinced, therefore, that any dentist following the reasoning above to classify a patient's ability to pay, plus the information he obtains from an actual examination of the mouth as to the type of dentistry the patient should have, regardless of these other factors, will find that he has at hand such knowledge, materials and techniques to render exactly the service warranted. Add to this the time factor and the amount of individuality we choose to add to the service, and we have an amazing flexibility that should cover each and every demand. Of course every case must be a law unto itself, but the fee, generally speaking, is to be based on the class of service rendered, except perhaps in the luxury group.

Could it be possible that our failure to adapt our professional possibilities to the benefit of all has placed us in the unenviable light and position in which we find ourselves today?

BUSINESS METHODS

If we have classified the patient's ability to pay, the type of work he should have, and can pay for, and find dentistry flexible enough to serve all, we have passed the first and biggest hurdle toward being paid for our services, and should insist upon it for various reasons:

1. People seldom appreciate what they get for nothing.
2. When we consider amounts paid for tobacco, liquor, movies, radios and cosmetics, there is no reason why dental bills cannot be paid.
3. Experience shows that patients who have been taught to pay, early in practice, are now the best patients; conversely, patients with whom you are lenient, become an economic problem.
4. If you collect, you get your fee and usually keep your patient; if

you do not collect, you lose both the fee and the patient.

Patients should understand that everything is flexible in dentistry, with one exception, that we can adapt everything about the profession to their individual requirements, but they must accept that one unalterable rule, the account must be paid.

Now here is even some flexibility in methods of collection, but it is definitely impossible to classify that process as we have been doing with other phases of practice. However, it can be done after a fashion, starting in the luxury class, where fees are high and you merely render accounts and await payment; then perhaps a group where the account would be rendered but followed up, not forgotten; through to a classification where you might anticipate several payments; on, to people where you would require definite arrangements of payment, perhaps a promissory note, or a deposit, and the balance when work was completed; and so on down the line to where a deposit is required with a stipulated amount to be paid each appointment; to the less fortunate who can only putter along with small weekly amounts. Let us be consistent. The fee as stipulated should be collected or no charge made in the first instance, ever keeping in the foreground the good reputation of our profession, and also sharing the glory in showing kindness and free service if necessary to those less fortunate than their fellows.

COLLECTION OF ACCOUNTS

Up to the present the conception of "collection" seems to have been an ever increasing variety of methods which we started to apply after services had been rendered. This is an age of prevention; why not apply it here. I would like to feel that "collection" is something that automatically takes place at the completion of services rendered, as a result of business methods, environment, personality, and the general atmosphere up to that point. A good patient never appreci-

ates you more than while he is having his first professional treatment by you; a poor patient never requires more business education than during that same period; so that is the time to introduce all new patients to fair business methods. The writer is of the opinion that there is too great a tendency to relegate the business system to an assistant, that dentists would be better advised to spend time giving attention to money already earned but not collected, than to put in extra hours at the chair, which simply add to their book debts and disillusionment. An essential to success here, of course, is a perfect credit rating for yourself. This is facilitated by paying cash for everything, and when it is necessary to finance, do it only with the bank. Never ask your best friend to tide you over.

Accounts should be mailed to arrive the morning of the last day of the month. Accounts for work completed the last week of the month should be mailed a week later; there is no reason to hold them up a month. At the middle of the month a check-up should be made and delinquents followed up. Patients should be checked upon the first deviation from an accepted agreement of payment. We are of the opinion that an hour a week behind the desk rather than beside the chair makes the difference in whether or not you can afford to take those long, necessary vacations your health demands.

FOUNDATIONS OF PRACTICE (Dental Axioms)

Never buy against price; attempt to get wholesale rates, or take "cuts"; to every favour of this type there is an opposite and greater favour expected. Never run counter accounts; pay the grocery bill at once; then you can expect the same of the grocer.

Never barter services; pay for that insurance policy rather than have the agent take it out in your services.

Don't tell your wife anything about your patients or your practice, and

above all, don't embarrass her by designating whom she should patronize because they are patients of yours.

Keep your office and home life distinctly separate.

Don't be a scrap dealer; give the patient that old bridge; but charge for removing it.

Don't endorse promissory notes for accommodation.

Don't discount notes you take in the course of practice; you then avoid charge backs if not paid, and you yourself receive that good rate of interest rather than the bank.

Never sign petitions.

Never exchange professional services with the family physician; it is a nice idea but doesn't work out.

Never give hand-outs from the office; patronize regular charities.

Never quote over the telephone.

Never quote for competition.

Never advertise.

Never give discounts to personal friends. It will embarrass them; if it doesn't, they are not friends.

Eliminate those patients you don't like; they don't like you.

Close friends, your "fireside friends" are, in some cases, better kept there, by having someone else do their dentistry.

Never knock another dentist by word, deed, shrug of shoulders, or even raising of eyebrows.

Be suspicious of over praise by patients.

Do run your practice on time. Charge for broken appointments where justified.

Always quote for children, and the first time for all new patients, and *every time* for prosthesis of any kind.

Never be a "joiner" for business reasons.

Do have a recall service; better for more patients at less cost to them.

Never be a social climber.

The experience of many dentists over a period of many years, is conclusive proof, that one is better without patients who come to your office, for any other reason than your profes-

sional merit. Many dentists bemoan the social level of their profession, but water seeks its own level, and the chances are these are just the men who would lack social status anywhere. One's family background, home environment, education and natural instincts will automatically place you exactly where you belong socially.

The message of this paper is sociological as well as economical, proving you can do something about the professional and business level of your dental practice, which over the years will place you in a happy and desirable position in your community, having gained the respect of your fellow citizens.

Summary Statement of the Activities of the Dental Hygiene Commission of the College of Dental Surgeons of the Province of Quebec*

by DR. GABRIEL LORD, President of the Dental Hygiene Commission of the College of Dental Surgeons of the Province of Quebec

THE following is a brief report of the Dental Hygiene Commission of the College of Dental Surgeons of the Province of Quebec outlining the objective of the Commission and what has been accomplished up to the present time.

This Dental Commission commenced its activities many years ago by studying as completely as possible, the questions of public hygiene in the dental field; by observing what has been done in this field in the United States and in certain parts of Canada, especially in the Province of Ontario. As many statistics as possible were obtained, and in October 1942, the activities of the Commission commenced in earnest. The years dedicated to the study of these problems and the education received by the study enabled the Commission to undertake and carry out successfully the present program.

The first object of the Dental

Hygiene Commission was to make an impression on the public imagination, and make the people understand the urgent necessity of dental hygiene. This was accomplished by giving it all the publicity possible and by visual demonstrations such as exhibitions of civil and military dental equipment exhibited in November 1942 in many windows of large stores in Montreal. In this same month of November a very interesting campaign of education and propaganda on dental hygiene was broadcast. Since then, more than eighty radio broadcasts given in English and in French have been presented throughout all the Province of Quebec.

Other exhibitions were shown in Montreal during the winter of 1942 and the spring of 1943, the Commission participating in different social reunions with the cooperation, for instance, of the Board of Trade and the

*This Report appears also in the French Section of this issue of the Journal.

St. Lawrence Kiwanis Club. Indeed, everything possible was done to bring the importance of this matter to the attention of the religious, civil and military leaders as well as the general public.

A pamphlet dealing with the health of the mouth was prepared, printed and distributed. Three hundred thousand in French and English were used by the Commission during the winter and spring of 1942 and up to the present time.

Similarly, with the cooperation of the Health Department of the City of Montreal, a campaign was held in the schools of Montreal by means of great meetings which united the whole student body as well as the school-masters. These meetings brought to a close the inspection of the mouths of all the school-children by the dental inspection of the Municipal Health Division. From January 27, 1943, up to the present, the Commission has arranged for a representative of the Health Department to visit 88 schools containing more than 80,000 children. At every one of these reunions, a dentist who was a voluntary collaborator of the Commission, gave a short address on the subject of dental hygiene. From the month of May 1942, the Commission has extended its activities outside of Montreal and committees were formed in Quebec, St. Hyacinthe, Three Rivers, St. Jerome, Valleyfield, and arrangements are being made to form committees in Sherbrooke, Hull and other cities of the Province of Quebec. In that manner, some extremely elaborate campaigns were held, first in the old capital, where the cause of dental hygiene was magnificently defended and served. The Quebec Committee had many public meetings and many speakers were heard over the radio, the Prime Minister of the Province, the Minister of Health and his Deputy, the Mayor of Quebec and other important celebrities, acting as interpreters either over the radio or in the case of public addresses. Since then, many other cities

of the Province have carried on a week's successful and profitable campaign and others are likely to be held in various cities.

The Dental Hygiene Commission has also published every week, since November 1942, short articles in 117 French and English newspapers of the Province, daily and weekly. The Commission intends to continue the publication of these articles which have so far produced satisfactory results, since hundreds of letters have been received from the reading public.

Our Dental Hygiene Commission has other plans under way and is determined to have in the whole Province, numerous public demonstrations in favour of dental hygiene in cooperation with the Provincial Federation of the Boards of Trade. This work will be carried on by the voluntary help of a certain number of our Quebec colleagues to whom the Commission will provide all necessary resources to serve efficiently the cause of dental health. In other words, the Commission has planned other activities which all lead toward the goal of informing the public as quickly as possible as to the necessity of dental hygiene and the importance of good teeth.

One activity of the Commission will be a series of lectures to be given to the working men and women in factories of Montreal and its surroundings and later of the whole Province, wherever there will be social assistants or nurses. Our pamphlet entitled "A Dental Health Guide" will also be distributed in all these factories.

At present we are preparing a memorandum for the use of teachers of the Montreal School Commission which includes about thirty lectures on dental hygiene and will be given during the next school year to the student population of Montreal. All steps taken thus far with the management of the school commission have been successful.

Similarly, we are preparing a manual for the use of training schools for nurses in French Hospitals of the

Province. Again, we will be responsible for giving these lectures to the nurses and to whom a copy of our manual will be distributed.

Finally, we intend to proceed, in collaboration with the school authorities of our metropolis, to the examination of all school-children twice a year in the public schools of our large city of Montreal. This represents considerable work and undoubtedly we will begin by visiting only a few of them, but our project is to see them all twice a year. This examination will take place at the same time as the weighing of the children to be made by a physician of the city, and will be the work of a group among our devoted and voluntary dentists whom I shall contact as soon as possible.

In this connection we shall lay down different rules and have dental memorandum slips made out which are now in preparation and which will prove of great advantage from a statistical standpoint.

Before concluding, I do not wish to pass over in silence the special three day course in dentistry for children organized by our Commission at both Montreal and McGill Universities with the devoted help of Doctor Harry Thomson of the Canadian Dental Hygiene Council.

In order to elaborate, prepare and accomplish all that has been done during the last two years, to conceive,

study, improve and finally, perform all that is being done at present and that which is to be accomplished in the very near future; for all the work, wording, correspondence, translation; for the preparation and publication of weekly articles on dental education and propaganda; for the preparation of a great number of broadcasts and for the publicity which goes with them; also for the keeping of records for the use of our regular monthly meetings of the Executive Committee and for the wording of the minutes of everyone of them—our Dental Hygiene Commission has employed a permanent secretary since October 1942 and also a publicity head. Our publicist keeps in touch with me constantly and works under my control and according to my guidance.

The publicist head and his secretary are the only ones who receive a modest remuneration. Moreover, all other work performed by a number of our colleagues and which is increasing every day, is all undertaken on a voluntary basis and without remuneration.

In conclusion, I wish to assure our colleagues in Ontario that their good example and the splendid work accomplished by them for the good of dental hygiene, public health and the progress of dental science will greatly inspire and help me in the direction given by me to our Commission.

Montreal, July 17th, 1944.

Notice of Motion

Notice of motion is hereby given to repeal the "CONSTITUTION AND BY-LAWS" of the Canadian Dental Association, and, pursuant to section 3 of the ACT, substitute therefor Constitutional and Administrative By-laws as follows.

(It should be noted that the ACT is the Constitution of the Association, and cannot be amended without an Act of Parliament and that the Association has the right to make By-laws only.)

R. L. Pallen,
DELEGATE.

CONSTITUTION

of the

CANADIAN DENTAL ASSOCIATION

and

PROPOSED BY-LAWS

PART I

PROPOSED BY-LAWS

3rd Session, 19th Parliament

6 George VI, 1942

THE SENATE OF CANADA BILL

An Act to incorporate the Canadian Dental Association.

PREAMBLE

WHEREAS the persons hereinafter named, on behalf of the unincorporated association known as the "Canadian Dental Association, L'Association Dentaire Canadienne", have by their petition prayed that it be enacted as hereinafter set forth, and it is expedient to grant the prayer of the said petition: Therefore, His Majesty, by and with the advice and consent of the Senate and House of Commons of Canada, enacts as follows:—

INCORPORATION

1. Sydney Wood Bradley, Lorne E. MacLachlan, Thomas Provost and Felix A. French, all of the city of Ottawa, in the county of Carleton, in the province of Ontario, dentists, and all other members of the said unincorporated association, together with such other persons as become members of the association hereby incorporated, are incorporated under the name, in English, of "Canadian Dental Association" and, in French, of "L'Association Dentaire Canadienne", hereinafter called "the Association" and either the English or the French name may be used in carrying on the business or operations of the Association.

OBJECTS

2. The objects of the Association shall be:—

(a) To cultivate and promote the art and science of dentistry and all its collateral branches, and to maintain the honour and interests of the dental profession;

(b) To conduct, direct, encourage, support or provide for exhaustive dental and oral research;

(c) To elevate and sustain the professional character and education of dentists;

(d) To promote mutual improvement, social intercourse and goodwill among the members of the profession;

(e) To enlighten and direct public opinion in relation to oral hygiene, dental prophylaxis, oral health and advanced scientific dental service;

(f) To disseminate knowledge of dentistry and dental discoveries;

(g) To have cognizance of and safeguard the common interests of the members of the dental profession;

(h) To publish dental journals, reports and treaties;

(i) To do all further or other lawful acts and things as are incidental or conducive to the attainment of the above objects.

BY-LAWS AND RULES

3. The Association may make such by-laws and rules, not contrary to law or to the provisions of this Act, as it may deem necessary or advisable for the government and management of its business and affairs, and especially with respect to the qualification, classification, privileges, rights, admission and expulsion of members, the fees and dues which it may deem advisable to impose, and the number, constitution, powers and duties and mode of election of its board of

delegates, or its governing, managing or other sub-committees, and of its officers, and may from time to time alter or repeal all or any such by-laws and rules as it may see fit.

EXISTING CONSTITUTION BY-LAWS & RULES CONTINUED UNTIL CHANGED

4. Until altered or repealed in accordance with the provisions thereof, the existing constitution, by-laws, and rules of the said unincorporated association, in so far as they are not contrary to law or to the provisions of this act shall be the constitution, by-laws and rules of the Association.

PRESENT OFFICERS AND BOARD OF DELEGATES

5. The present officers and board of delegates of the said incorporated association shall continue to be the officers and board of delegates of the Association until replaced by others in accordance with the constitution, by-laws and regulations aforesaid.

POWERS

6. The Association may, for the purpose of carrying out its objects:—

- (a) subject to provincial laws;
- (1) acquire by purchase, lease, gift, legacy or otherwise any real and personal estate and property, rights and privileges;
- (11) own and hold any such estate, property, rights or privileges;
- (111) sell, manage, develop, lease, mortgage, dispose of or otherwise deal therewith in such manner as the Association may determine:

Provided, that real estate held by the Association shall not exceed in value at any one time the sum of five hundred thousand dollars;

(b) make, accept, draw, endorse and execute bills of exchange, promissory notes and other negotiable instruments;

(c) invest the surplus funds of the Association in such manner and upon such securities as may be determined;

(d) borrow money as and when required for the purpose of the Association;

(e) do all such other lawful acts and things as are incidental or may be conducive to the attainment of the objects of the Association.

MEMBERS NOT PERSONALLY LIABLE

7. No member of the Association shall, merely by reason of such membership, be or become liable for any of its debts or obligations.

PART II

PROPOSED CONSTITUTIONAL BY-LAWS

ARTICLE I

NAME

Sec. I. In and for the Dominion of Canada, there shall be an incorporated Dental Association hereinafter called "the Association" which shall assume and continue all functions and activities heretofore undertaken or performed by the unincorporated Association known as the "Canadian Dental Association, L'Association Dentaire Canadienne."

Sec. 2. The name of the Association shall be the Canadian Dental Association.

ARTICLE II

MEMBERS

Sec. I. *Corporate Members* — shall consist of all provincial statutory dental corporations which shall have made application for and shall have been admitted to corporate membership by the members of the Association in general meeting regularly assembled. Continuance of membership by corporate members shall be contingent upon the payment of an annual grant satisfactory to the Board of Governors. No corporate member shall withdraw from membership except upon notice given one year in advance of the intended date of withdrawal.

Sec. 2. *Individual Members* — shall consist of all persons who were on Aug-

ust 1st, 1942, members of the unincorporated Association known as the "Canadian Dental Association, L'Association Dentaire Canadienne" and such other persons who are registered as members of corporate members and who have been admitted to membership in the Association upon the recommendation of the governing bodies of corporate members who may in their absolute discretion refuse to recommend any person for admission to membership in the Association as an individual member, and shall not be bound to give any reason for such refusal. A list setting forth in alphabetical order the names and addresses of all persons recommended by the governing body of each corporate member for admission to and/or continuance of individual membership shall be submitted annually to the Secretary of the Association concurrently with the annual grant. Forthwith upon the admission of any individual member to membership in the Association, a membership card shall be forwarded to such member. Every person included in a list submitted by a corporate member and by such corporate member recommended for individual membership, shall be deemed to be an applicant for membership in the Association, unless within thirty days of the delivery of his membership card in the Association, he shall notify the Secretary that he does not desire to be or to continue to be a member. Any individual member shall be at liberty to withdraw from the Association at any time upon thirty days' notice.

Sec. 3. *Honorary Members*—shall consist of persons who shall have made meritorious contributions to the art and science of dentistry, or who shall have rendered valuable service to the Association, and such other persons as may be determined by the Board of Governors, and who shall have been nominated by the Nominating Committee and then elected to honorary membership by the Board of Governors, and who shall have consented to such election.

Sec. 4. *Associate Members* — shall consist of persons who shall have made

application for and shall have been admitted to associate membership in the Association by the Board of Governors.

ARTICLE III

OFFICERS

The officers of the Association shall be a President, a Vice-President and a Secretary-Treasurer.

ARTICLE IV

BOARD OF GOVERNORS

There shall be a governing body called the "Board of Governors" which shall consist of the officers of the Association and representatives appointed or elected by the corporate members.

ARTICLE V

EXECUTIVE COMMITTEE

There shall be an Executive Committee of the Association which shall consist of the officers of the Association and two other members elected from the Board of Governors.

ARTICLE VI

ELECTIONS

Sec. 1. (a) Provincial representation to the Board of Governors shall be on the basis of one delegate for each province and where there are more than 500 licentiates in good standing in a province such province shall be entitled to an additional delegate for each additional unit of 500 members, or major portion thereof, in good standing.

(b) Each corporate member shall appoint or elect a representative or representatives to the Board of Governors in such manner as the corporate member may decide, and such appointment or result of such election shall be forthwith certified to the Secretary of the Association by the Secretary of the corporate member, or other officers.

Sec. 2. (a) The Board of Governors shall, during its annual meeting elect, by ballot, the President, Vice-President and Secretary-Treasurer and two of its members to the Executive Committee.

(b) The Immediate Past-President shall be an ex-officio member of the Board of Governors and of the Executive Committee.

ARTICLE VII TIME OF OFFICE

The retiring officers, and the Executive Committee shall continue to hold office for a period of six weeks following the meeting at which their successors were appointed or elected; at which time the incoming officers and Executive Committee shall assume office.

ARTICLE VIII MEETINGS

The meetings of the Association shall be held annually, unless otherwise ordered by the Board of Governors, at such time and place as may be determined by the Board of Governors.

ARTICLE IX AMENDMENTS

The Constitutional By-Laws may be amended only by the Board of Governors at a session of the Board of Governors, provided that a copy of the proposed amendments shall have been mailed to the Secretary-Treasurer of the Association at least three months prior to the meeting of the Board of Governors at which action upon such amendments is proposed to be taken. A copy of such proposed amendments shall be forthwith mailed by the Secretary-Treasurer to the Secretary of each corporate member. Any such amendment shall require for adoption the affirmative vote of two-thirds of the members of the Board of Governors.

PART III PROPOSED ADMINISTRATIVE BY-LAWS

CLAUSE I DUTIES OF THE BOARD OF GOVERNORS

The Board of Governors shall conduct the affairs of the Association.

CLAUSE II DUTIES OF THE EXECUTIVE COMMITTEE

The Executive Committee shall

(a) conduct such business of the Association during the interim between meetings of the Board of Governors as shall have been delegated to it by the Board of Governors, and such other business as may require immediate action, and all actions of the Executive Committee shall be valid unless otherwise ordered by the Board of Governors.

(b) have full control of all arrangements of the annual meeting, provide the meeting place for the Association, Board of Governors and various sections. It shall also have control of all clinics and exhibits. The Executive Committee may appoint local committees of arrangements to be at all times under the control of the Executive Committee. Invitations for the Association to convene in any city or place shall be presented to the Executive Committee who shall recommend to the Board of Governors the places available for the annual meeting with the advantages and disadvantages.

CLAUSE III MEETINGS OF THE BOARD OF GOVERNORS

Sec. 1. The Board of Governors shall meet annually unless otherwise ordered by the Board of Governors. Other meetings may be held at the call of the President, or at the request in writing of any five (5) members of the Board of Governors a meeting shall be held.

Sec. 2. The Board of Governors shall, in the event of any office becoming vacant, fill such vacancy.

Sec. 3. A majority of the members constituting the Board of Governors, shall be a quorum for the transaction of business at any meeting.

CLAUSE IV

ELECTION OF OFFICERS

Sec. 1. The President, Vice President, Secretary-Treasurer and two members of the Executive Committee shall be elected by separate ballot at the annual meeting of the Board of Governors, after report of the Nominating Committee.

Sec. 2. All elections shall be by ballot and a majority of the votes cast shall be necessary to elect. In case no one receives a majority of the votes in the first ballot, the one receiving the least number of votes shall be dropped and a new ballot shall be held. This procedure shall be continued until one receives a majority of all the votes cast when he shall be declared elected.

CLAUSE V

DUTIES OF OFFICERS

President

Sec. 1. The President shall

(a) preside at all meetings of the Association and of the Board of Governors.

(b) be an ex-officio member of all committees.

(c) sign all official documents requiring his signature.

(d) deliver an address before the Association and also before the Board of Governors.

(e) in an emergency appoint Special Committees.

Vice-President

Sec. 2. The Vice President shall

(a) assist the President in the performance of his duties.

(b) in the absence of the President, preside and assume all duties and responsibilities of the President.

Secretary-Treasurer

Sec. 3. The Secretary-Treasurer shall

(a) keep the records of the Association,

the Board of Governors and the Executive Committee.

(b) verify credentials of all members of the Board of Governors.

(c) keep minutes of all meetings of the Association, the Board of Governors and the Executive Committee.

(d) be custodian of all books, papers, documents, funds and securities belonging to the Association appertaining to his office and shall have authority to sign and endorse cheques, drafts and other negotiable instruments on behalf of the Association.

(e) take charge of and conduct the correspondence of the Association, the Board of Governors and the Executive Committee and shall keep copies of all official letters with replies to same.

(f) notify in writing all officers and committeemen of their election or appointment.

(g) give due notice of time and place of all annual and special meetings of the Association and the Board of Governors by publishing same in the Journal of the Canadian Dental Association and shall notify the members of the Board of Governors individually of such meetings.

(h) pay all accounts and keep accurate record of receipts and disbursements.

(i) cause his books to be audited by a Chartered Accountant, appointed by the Executive Committee, at the conclusion of his term of office, and/or when requested to do so by the Board of Governors.

(j) collect all monies due the Association.

(k) furnish a surety bond in amount of five thousand dollars, the premium of which shall be paid by the Association.

(l) perform such other duties as usually appertain to his office,

(m) Promptly turn over to his successor all funds, securities and property in his possession, of whatever nature, which belong to the Association.

CLAUSE VI

MAIL VOTE

A vote of the Board of Governors may be conducted by mail and any ac-

tion thereby concurred in by a majority of the members of the Board of Governors in writing shall be as binding and effective as if taken in a meeting regularly assembled.

CLAUSE VII

COMMITTEES

There shall be the following Committees appointed by the Board of Governors:

1. Nominating
2. Legislation
3. Finance
4. Publications
5. Dental Education
6. Dental Public Health
7. Program
8. Ethics
9. Research
10. By-Laws
11. Necrology

and such other special and reference committees as may be determined by the Board of Governors.

CLAUSE VIII

REVENUE

Sec. 1. The revenue of the Association shall be derived chiefly from annual grants from the corporate members; the amount of the said grants shall be determined by agreement among the corporate members.

Sec. 2. There shall be due and payable by each associate member an annual fee, the amount of which shall be determined from year to year by the Board of Governors.

CLAUSE IX

REGISTRATION FEE

Sec. 1. All members of the Association attending a meeting of the Association may be charged a registration fee the amount of which shall be determined by the Executive Committee.

Sec. 2. The Executive Committee may, from time to time, waive the regis-

tration fee in respect of such persons as it may determine.

CLAUSE X

ETHICS

It shall be unethical for a dentist in the pursuit of his profession to do anything with regard to it which would be reasonably regarded as disgraceful or dishonorable by his professional brethren of good repute and competency.

CLAUSE XI

APPLICATION OF FUNDS

Sec. 1. The Board of Governors shall determine the salary or remuneration to be paid to any officer of the Association.

Sec. 2. The Board of Governors may, out of any funds in the treasury, make grants for the standing and advancement of the science of dentistry and the improvement of dental services to the public.

Sec. 3. The Executive Committee shall determine the salary or remuneration to be paid to any person employed by the Executive Committee for the purposes of the Association.

CLAUSE XII

SEAL

There shall be an official seal of the Association, the imprint of which must appear on all official documents and papers.

CLAUSE XIII

ORDER OF BUSINESS

1. Reading of minutes
2. Reports of officers
3. Reports of committees
4. Unfinished business
5. New business
6. Election of officers
7. Adjournment

CLAUSE XIV

RULES

The rules contained in Robert's Rules of Order shall govern the Association, the Board of Governors and the Executive Committee in all cases to which they are applicable, and when not inconsistent with the By-Laws.

CLAUSE XV

AMENDMENTS

Sec. 1. The Administrative By-Laws may be amended by the Board of Governors provided that a copy of the proposed amendments shall have been mailed to the Secretary-Treasurer of the Association at least three (3) months

prior to the meeting of the Board of Governors at which action upon such amendments is proposed to be taken. A copy of such proposed amendments shall be forthwith mailed by the Secretary-Treasurer of the Association to the Secretary of each corporate member. Any such amendment shall require for adoption the affirmative vote of two thirds of the members of the Board of Governors.

Sec. 2 Provided that the notice of any proposed amendment required by Section 1 hereof may be dispensed with by unanimous vote of the members of the Board of Governors present at any meeting, and any such amendment shall require for adoption the unanimous vote of the members of the Board of Governors, present at any meeting.

ANNOUNCEMENTS

Dominion Dental Council Examination

There will be a Dominion Dental Council examination held in Toronto on May 10 to 15, inclusive. Class D. fee should be in the Secretary's office not later than the first of April and the Class A. fees, April 10.

*A. J. Brett, Secretary,
Regina, Saskatchewan.*

Refresher Course at Dalhousie

The Faculty of Dentistry, Dalhousie University, Halifax, is arranging a Refresher Course in Children's Dentistry to be held at the College February 28 to March 2 inclusive. The Faculty will be assisted by Doctor Paul Losch of the Harvard School of Dental Medicine and Children's Hospital, Boston, and by Doctor Stewart A. MacGregor of Toronto. Applications for the course should be sent to the Secretary, Dr. H. M. Eaton, Birks Building, Halifax.

W. W. Woodbury.

Refresher Course at University of Toronto

The Faculty of Dentistry, University of Toronto, will, during the early part of 1945 conduct refresher courses in dental surgery, periodontology and dentistry for children. A program appears in the Ontario News Section of this Journal.

*Chicago Dental Society Midwinter Meeting, Stevens Hotel, Chicago,
February 12-15, 1945.*

*Minnesota State Dental Convention, Municipal Auditorium, Minneapolis,
Minnesota, February 27-March 1.*

Western Canada Dental Society Convention, Winnipeg, June 18-20.

Schoolmaster Abroad

QUESTION:

WHAT CONSIDERATION, IF ANY, IS GIVEN THE FRENUM LABIORUM IN THOSE CASES WHERE IT IS THE CAUSE OF SEPARATION OF THE CENTRAL INCISORS?

ANSWER:

(The following answer was given by Allan G. Brodie, D.D.S., Ph.D., Professor and Head of Department of Orthodontia, University of Illinois, College of Dentistry, Chicago, and published in the April 1, 1944 Fortnightly Review of the Chicago Dental Society.)

In the first place, it must be determined that the frenum is actually the cause of the separation. A space between the upper central incisors is a frequent phenomenon of the mixed dentition. It arises through the fact that the growth of the alveolar process is a little ahead of the eruption schedule of the teeth. It is therefore difficult to determine whether the frenum is the effective agent before the completion of the descent of the permanent maxillary canines.

If a space remains after this time and if all other contacts are closed it may be assumed that the frenum is at fault. In such cases the central incisors should be brought together by means of a simple orthodontic appliance. (Rubber elastic traction should never be used.) This will result in a "balling-up" of the mid-line interproximal tissue. The centrals should then be released for about twenty-four hours from the force that has brought them together. This permits a certain degree of relapse with a consequent respacing. Now the interproximal tissue should be carefully dissected away, either surgically or by cautery, care being taken to remove the frenum well to the palatal

side to well on the labial side. The epithelial edges should be sutured if the excision has been made surgically and the teeth once more tied firmly together, this time for a period of weeks.

True frenum separations are relatively rare, the author having seen only one operable case in eighteen years.

QUESTION:

SHOULD A DENTIST DEMAND A FEE FOR EXAMINATION AND ADVICE?

ANSWER:

(Taken from an editorial in the Dental Journal of Australia, May, 1944)

We have been asked several times whether a dentist should demand a fee merely for examination and advice. The answer is "yes". Without entering into a discussion upon the subject, we shall mention two cases in which the dentist sued a patient and in each obtained a verdict.

The first case was heard at the North Sydney Police Court. A full account of it appears in our Journal for January, 1931. The other was heard in the Bloomsbury County Court, England. In that case also the patient said the dentist was only asked for an examination and an estimate. In reply, the Registrar of the Court said: "You must not look upon a professional man as a tradesman; he was imparting to you knowledge which it took him years to acquire." That is the correct aspect to take, and every time a dentist examines a mouth he should remember it. Dentistry is regarded as a very important branch of medicine, and should be practised on the same dignified lines as any other.

A full report of this case appears in our Journal for November, 1933.

The Forum

SMALL UNRECOGNIZED STROKES **A Common Cause of Illness in Older Persons**

by WALTER C. ALVAREZ, M.D., Rochester, Minn.

Condensed from Jour. Michigan S. Med. Soc. per Jour. Mich. S. Dent. Soc.

WHY should a gastro-enterologist be talking about little strokes? Because several times a month he sees patients with supposed indigestion or liver trouble who really have had a tiny stroke. Some little vessel in the brain has become plugged with a clot, and this has caused a small globule of brain to be destroyed. With this there may have been a dizzy spell, perhaps with nausea or vomiting or some mental confusion, or perhaps a sort of nervous storm running down the vagus nerves into the abdomen, there to produce a distressing feeling.

Some of you will say, "But surely not every dizzy spell is due to a little stroke. Aren't most of them due to harmless changes in the ear or liver or colon?" Yes, many must be due to fairly harmless changes somewhere because they seem to leave no residue of injury to the body, and others may be due to a temporary spasm in a little blood vessel, but especially when severe vertigo is associated with some mental confusion and is followed by a nervous breakdown with decided changes in character, one can be almost certain that a small part of the brain has been destroyed by the thrombosis of a blood vessel.

Big strokes are common enough and surely little ones must be even commoner. As Janeway and Osler pointed out years ago, a large percentage of people with high blood pressure die a

brain death. Little by little, during the course of ten years or more, the brain is destroyed, and as it goes the poor victim ages and becomes more slowed up. The same thing happens to an even greater number of aging women who haven't hypertension.

To me it seems almost pathognomonic of a stroke when the fact can be established that an elderly person who formerly enjoyed good health, suddenly, at a certain minute of a certain day, fell seriously ill. Perhaps he fell down and was a bit confused for awhile afterward. Perhaps he went to the hospital for a few weeks and was thought to have "intestinal flu" or some other vague disease. As has already been shown, he may have had a dizzy spell, and for a time afterward was fearful of walking without support. Sometimes the history is not so clear, but even then it may be established that the illness began one morning when the patient woke feeling upset and miserable or with a bad headache. In such cases what probably happened was that a blood vessel plugged up during the night when the blood pressure was at its lowest point. Many little strokes produce so little shock that they cannot be recognized even when they come during the waking hours.

The most pathognomonic point, which must never be glossed over, is that with a dizzy spell or a fall or an

attack of vomiting, there came a decided change in character or temperament, perhaps with an increased irritability, a loss of efficiency, a loss of memory and interests, an inability to work, or an inability to feel any joy in life. It must be remembered that no disease of the abdominal organs, no matter how severe, can, in a moment, cause such a profound change in the character and health of the victim.

Some small strokes cause a sudden distress or even a severe pain in abdomen or thorax.

Occasionally the main symptom complained of by a patient who has had a small stroke is a sudden and permanent loss of from 20 to 60 pounds.

An occasional woman of fifty or so will complain of a bitter or metallic or acid taste, or a burning in her mouth for which no local cause can be found. For years I have been coming more and more to suspect that these persons have suffered a slight injury to the brain or to some nerve tract or nerve supplying the mouth or tongue. These people are at the right age for a stroke, and their distress is typically incurable. I have never seen one of them helped by treatment of any kind.

In older persons some of the poorly understood and highly intractable pains in the face or head may well be due to a slight stroke. Again, the age is right; there may be strokes before

and after the pain comes, and no treatment gives any relief.

In older persons sudden short attacks of diarrhea may be due to a little stroke.

When an aging man suddenly begins to shuffle his feet a bit or to take small steps or to walk unsteadily one must think of arteriosclerotic changes in the brain and spinal cord.

Insomnia coming suddenly and unaccountably in an older person who has previously slept well suggests that there has been a slight stroke.

A woman past middle-age may suddenly find herself crying at the slightest excuse or for no reason at all and caused by an arteriosclerotic injury to some part of the thalamic region of the brain. When the injury to the brain is a small one, and new ones do not come for a long time the patient can recover from an episode and can do very well.

When a patient asks anxiously if the fact that he has had a little stroke means that he'll soon have another we can answer, "Not necessarily, and it is no use worrying about it."

So far as I know there is no logical treatment except perhaps taking life more easy and avoiding excesses, especially of temper. There are drugs such as iodides which one can give, but it is impossible to determine if they do any good. In some cases soporifics are needed.

THUMBSUCKING

by VERNA OWENS ADRION, R.N., Grandville, Michigan

Conclusions of paper in Jour. of D. for Children, 3rd Quarter, 1944.

1. The sucking instinct is a natural one in the child.
2. Thumbsucking may be an aetiological factor in malocclusion.
3. Thumbsucking may be an indication of something wrong in the child's feeding regime.
4. Thumbsucking may be an indication of some emotional disturbance of the child.

5. Discourage the tendency as soon as it manifests itself. Try to discover the cause and, if it is insufficient feeding or lack of attention, supply those needs. The proper time to control thumbsucking is before it has reached the stage where it becomes a habit. At that time there is no danger of causing malocclusion of the jaws or the personality.

THE SCHOOL DENTAL SERVICE

Condensed from Editorial in N. Zealand D. Jour. July, 1944.

TWENTY-ONE years have now elapsed since the present School Dental Service was established in the Dominion, and perhaps the time is not inopportune to review its growth and activities during this period.

In 1920 it was decided to appoint a Chief Dental Officer, and for this position Col. Hunter was chosen, and his advice sought as to the course the future service should take. Prior to this, however, the Government had evidently been considering a State scheme on somewhat ambitious lines, but Col. Hunter, recognizing the magnitude of the problem and the cost, recommended that the best course to adopt would be to approach the matter from a preventive aspect and concentrate on the younger children first. For this purpose he suggested that young women should be selected and trained by the Government, by means of an abbreviated course, to become dental nurses. This, however, did not meet with the approval of a large section of the profession, and a heated controversy arose; but Col. Hunter, confident in his own mind that the nurses would make good, held his ground, and eventually his views gained the approval of the Association. The Government then decided to inaugurate the scheme that had been recommended.

It will be conceded, perhaps, even by the most biased mind, that the scheme has on the whole fully justified itself, not only by the high standard of the work accomplished, but also from an educational point of view, in that the gospel of oral hygiene has penetrated deeper into the minds and homes of the rich and poor alike. Thus it may now be said that the confidence of the first Director in the ability of the nurses to make good, which at one time was questioned, has been simply confirmed.

Whatever may be said to the contrary, it is obvious that, so far as pri-

vate practice in the Dominion is concerned, its organization and distribution, together with the limited service available, especially in the rural districts, leave much to be desired. Consequently the recent memorandum of the Minister of Health which was forwarded to the Secretary of the Association in Wellington through Mr. Saunders, was not unexpected. In this memorandum the Minister's views with regard to the future of dental practice are clearly set out in a long-range plan, but meanwhile the approval of the Association was only asked for the preliminary part of it, namely, the expansion of the present service so as to embrace the dental treatment of all children up to adolescence by the appointment of qualified dentists who would undertake such work as might be outside the scope of the nurses. To this proposition the Executive in Wellington, after consultation with the various Branches, has since agreed, and developments in the future are likely to be watched with the greatest interest; for if by this means the incidence of dental disease can be decreased, the step now about to be taken should possess the greatest significance, not only with regard to the battle for better dental health in this country, but in other countries as well.

In undertaking the treatment of patients up to 18 years of age, the Service will have more room to deploy and manoeuvre (to use a military phrase) and strike with greater vigour in the battle for better dental health.

Finally, in spite of certain adverse criticism levelled at it from abroad mainly, we believe, in connection with the training and scope given to the nurses, we venture to add that time might yet prove that the initiative shown in this respect was a step in the right direction. To-day we hear much about the privileges, traditions, and rights of the medical and dental

professions, but experience has proved that when such things become obstacles to a higher and perhaps nobler ideal in the promotion of better health, they have been ruthlessly swept aside by governments. Moreover, in this connection it might be well to remember that traditions can be dangerous things, and can lead to much unpreparedness in times of crisis. And perhaps we need not go to China for confirmation of this truth; for if ancestral worship has been the undoing of that country in the past, it has likewise, although in a somewhat lesser degree, been re-

sponsible for impeding much progress in occidental countries as well. But fortunately in modern and progressive countries, belief in such things has undergone an atrophy, and traditions that set previous generations aglow leave most people cold. The philosophy of the present day is rather to regard such things as illusions, for as the distinguished author of "The New Machiavelli" points out, "the things that time has in store for us are infinitely finer and better worth having than the things which made the great traditions that have floated down from the past."

DENTAL CARIES EXPERIENCE IN HUSBANDS, WIVES AND THEIR OFFSPRING

by HENRY KLEIN, Division of Public Health Methods, United States Public Health Service, Bethesda, Md.

APPROXIMATELY 1700 married couples and about 3000 of their children (all of Japanese ancestry) received detailed dental examinations in the fall of 1943. Preliminary analyses of the collected data indicate that a significant relationship exists between the amount of caries experienced by the wife and that experienced by her husband. Women who have experienced, over their lifetime a large

amount of caries, have husbands who consistently show a larger caries experience than that shown by husbands of women having small amounts of caries experience. Parents who have experienced the largest amounts of caries have offspring who have approximately 3 times more caries experience than do the offspring (of the same ages) of parents with the smallest caries experience.—*Jour. of D. Research.*

GINGIVAL DISTURBANCES

by RALPH A. REYNOLDS, M.D., San Francisco
Summary of paper in Jour. of California State D. Assoc., April, 1944.

I WOULD point out that when confronted with paradental disease one dentist or physician may feel that the solution to a particular problem lies in the field of endocrinology. Another may feel that the dietary factor is the important cause. Still another may lean toward microbic retention as the explanation. Allergy might be put forth as a cause. The biochemist

would undoubtedly lay most stress on plasma proteins, capillary control, etc. The important point to remember is that the solution does not lie in any one field. The well-rounded physician and dentist will evaluate properly all possible approaches and attempt to place the patient's difficulty within its proper category.



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THE CANADIAN DENTAL ASSOCIATION, THE DENTAL CORPS AND THE JOURNAL

Reports continue to reach this office by letter from Dental Corps officers overseas and from a number who have returned to this country, that the men of the Corps, over there particularly, are very much disappointed at the lack of news of their overseas activities carried in the official Journal of the Canadian Dental Association and are blaming not only the Journal but the Canadian Dental Association for this state of affairs.

At a meeting of the Journal Committee together with some other high ranking officers of the Canadian Dental Association, held recently in Toronto, it was the unanimous opinion of those present that some statement should be made in the Journal pointing out the facts relative to this problem, since neither the Journal nor the Canadian Dental Association has any control over articles which may or may not be submitted for publication in connection with the Canadian Dental Corps either at home or overseas, such control resting with the command of the C.D.C. by whom all such articles must be approved.

It is only natural that this statement should be received with some surprise since the Canadian Dental Association is the father of the present Corps and naturally one would expect both father and son to be deeply interested in the welfare, the aspirations and current activities of each other. There should

be, and is, a real community of interest and it should not be hampered by lack of information concerning each other.

In fact, some years previous to the commencement of the present world struggle, the Canadian Dental Association had a Dental Corps Committee working out an establishment for a Dental Corps in Canada, keeping in mind the serious problems which arose during the last war and making every effort to evolve a plan free from defects. Fortunately, negotiations with the Department of National Defence had so advanced that this plan was practically complete when the present emergency arose. Before Canada declared war, our C. D. A. President, Dr. Stephen A. Moore, who at that time was in Halifax on Association business, was called to Ottawa and, as instructed by the Board of Delegates, submitted the name of the present Director of Dental Services to the Department of National Defence for the position of Chief Dental Officer of the proposed reorganized Dental Corps. This recommendation was accepted and Orders-in-Council were passed disbanding the old Corps and putting into effect the new organization. From this it can be seen that the reorganized Dental Corps is the result of the efforts of the Canadian Dental Association. Likewise, it was through the influence and advice of our Association that the leading personnel in the Corps was appointed. This being the case, one would expect the closest co-operation between all concerned to the very end of the road.

Of course, it is difficult for a civilian who is not entirely conversant with army rules and regulations to evaluate all the proceedings which enter into the picture of co-operation with anyone not an intimate part of the army itself. From the standpoint of co-operation, perhaps everything humanly possible has been done, in seeking counsel from C. D. A. officials, in securing interesting news items from overseas and from the home front for publication. Therefore, that is not the point of this editorial; but, realizing the importance of the matter, we feel that we must make it clear once and for all that the Journal officers and the C. D. A. officers are not in the slightest degree responsible for any news items or articles which have or have not appeared in the Journal. All such items have to be passed by Corps Headquarters in Ottawa and the editor has undertaken not to publish anything relative to the Corps which does not emanate from Headquarters or which has not been censored by this body.

A great deal of thought is being given to this problem by many dentists in these days. This shows that we are greatly interested in our Dental Corps. The more we know about our members overseas, about their experiences, their life and viewpoint, the better able we shall be to co-operate with them when they return to civilian life to engage in private practice.

Due to regulations, our system seems utterly inadequate in so far as obtaining this news is concerned. However, every situation in which we find ourselves is simply the development of certain trends which in many cases are scarcely recognizable until trouble arises. The answer is closer co-operation between Corps and C. D. A.

Sigerist, of Johns Hopkins, tells of how, while standing on the Grand Coulee Dam while it was under construction, he was discussing the undertaking with the agricultural engineer, and how the engineer gave a glowing picture of how irrigation would turn the desert into the finest orchards. When the engineer was asked who was going to eat the fruit the answer was, "That's none of my business." The idea had never registered that the fruit might rot on the trees on account of labour and transportation difficulties. Today the scientist can no longer just remain in his laboratory. He must assume responsibilities relative to society as a whole and take an active part in determining the destinies of the nation, and so if dentistry is going to reach the pinnacle of achievement, everyone connected with the Corps, the Canadian Dental Association and its Journal, must work in closest co-operation for the good of humanity, otherwise the fruit of our efforts may "rot upon the trees". Because of lack of foresight, we can allow differences of opinion to develop until we are drawn into the maelstrom of bitter factions and misunderstandings in our profession, but the better way is to adjust differences before they reach unmanageable proportions.

We are proud of our efficient Canadian Dental Corps and we are equally proud of the way the civilian dentists have carried on during this war and we believe that the thorough dissemination of news related to the activities of both the Corps and the C. D. A. is one way to achieve co-operation at a later date.

There are finer things in life than playing games, but if there were no games to play, would more people do finer things? I doubt it. They would probably only do something worse.—Robert Lynd.

If it is clear that you are not only a competent dentist, but in addition a person of culture and of broad interests, the intelligent person will conclude that such a practitioner will be wise in his judgment—that his view of his or her case will include all that should be considered before making a decision.—William B. Dunning.

"In 1848 eleven members were suspended from the Society in New York for malpractice . . . for using amalgam!" — M. D. K. Bremner in "The Story of Dentistry."

DENTAL CORPS NEWS

SUPPLEMENTARY LIST, CANADIAN DENTAL CORPS OFFICERS AS OF NOV. 30

APPOINTMENTS

Rank, Name and Date	Civilian Address
Lieut. J. T. Thompson, 19-10-44 . . .	Campbellton, N.S.
Lieut. (A/Capt.) L. S. Mason, 18-11-44 . .	Simcoe, Ont.
Lieut. H. B. Freeman, 13-11-44	Toronto, Ont.

RETIREMENTS

Lieut. (A/Capt.) P. D. Brunet, 25-10-44 . .	Timmins, Ont.
Major F. A. Kohli, 25-10-44	Orillia, Ont.
Major B. B. Claman, 16-10-44	Winnipeg, Man.
Major W. J. McAuley, 26-10-44	Moose Jaw, Sask.



Shown above, during the presentation of the Victory Pennant to the Canadian Dental Corps headquarters in Ottawa, are from left to right, Capt. F. E. Harrington and Lieut.-Col. Phillip Abbey, of the Seventh Victory Loan Committee at National Defence Headquarters, and Brig. F. M. Lott, Director General of Canadian Dental Services, and Capt. Saul Simon, C.D.C. The pennant was awarded the Corps headquarters when the unit achieved one hundred percent in total of individual sales, and exceeded their total sales allotment by a considerable margin.

Lieut.-Col. Phillip Abbey, of the Seventh Victory Loan Committee at National Defence Headquarters, is shown presenting the Victory Pennant to Brig. F. M. Lott, Director General of Canadian Dental Services, at C.D.C. Headquarters in Ottawa. The C.D.C. Headquarters achieved one hundred percent in individual purchases and exceeded their total sales allotment by a considerable margin.



**Lt.-Col. L. E. Kent (O.C. 18 Coy.,
C.D.C.)**

Lt.-Col. Leonard E. Kent was born in St. Anne de Bellevue, Quebec, November 7, 1899. He was graduated in Dentistry in 1923 from McGill University after early education in St. Laurent College and Westmount High School.

He practised his profession in Lachine, Quebec, where his wife and four children make their home.

He joined the Canadian Militia in April, 1938, as an attached dental officer to No. 19 Field Ambulance, R.C.A.M.C., and was one of the original officers in No. 4 District Dental Company at the outbreak of war. He was promoted to field rank in November, 1941, and to Lt.-Col. in March, 1944.

He is Past President of the Montreal Dental Club.

Col. Kent's hobbies are fishing, hunting and golf.



**Lt.-Col. G. B. Shillington (O.C. 20 Coy.,
C.D.C.)**

This officer was graduated from the University of Toronto in 1934. He then spent a year on post graduate work at Forsyth Dental Infirmary at Boston, Mass., then two years teaching at the U. of T. in the Departments of Dental Anatomy and Preventive Dentistry, also doing post graduate work, culminating in the B.Sc. (Dent) Degree.

He practised in Toronto until the outbreak of war. He joined the C.D.C. November 6, 1939 and proceeded overseas in June, 1940. Until December, 1942, he was with various Army units in the first and second divisions in England and was promoted to the rank of Major in June 1942.

In December, 1942, he was transferred to No. 18 Can. Base Dent Coy. (R.C.A.F.) and proceeded to the Middle East where he worked most of the time at R.C.A.F., D.H.Q., Cairo, till May 1944.

He was promoted to Lt.-Col., and appointed to command No. 20 Can. Base Dent. Coy. as of October 17, 1944.





Lt.-Col. R. A. Gilbert (O.C. 19 Coy., C.D.C.)

Lt. Col. R. A. Gilbert was born in St. Thomas, Ontario. He enlisted in the Can. Army Dental Corps while a student at the Royal College of Dental Surgeons and returned to the College to graduate in 1917. Following the war he practised in St. Thomas. He is married and has two sons.

He took post-graduate work at the University of Michigan and is a member of Michigan State Dental Society. He is an honorary member of the 91st Elgin Regiment; 32 A.F. & A.M.; Past District Deputy of the Knights of Pythias; and charter member of the St. Thomas Kiwanis Club.

He was promoted to the rank of Major in June, 1942, and was acting O.C. No. 8 Coy., C.D.C., March-May, 1942. He was appointed O.C. of 19 Can. Base Dental Coy. in October 1943, and was promoted to the rank of Lt.-Col. in March 1944.

CANADIAN DENTAL ASSOCIATION NEWS

(FROM THE OFFICE OF THE SECRETARY)

Grant for Research Committee

The Dominion Dental Council made a generous contribution to the C.D.A. Research Committee at the meeting of the Council held in July last. The Association has now been officially informed that the following resolution was passed:

"That the D.D.C. contribute \$5,000 to the Research Committee of the Canadian Dental Association, to be paid at the rate of \$1,000 annually, and to be used for research at the discretion of that committee, if and when required."

This grant is most acceptable at the present time in order to facilitate the action of the Research Committee with respect to establishing a proper basis for dental research in Canada.

Saskatchewan Appoints a New Representative

Official notification has been received that Dr. L. F. Hare of Moose Jaw has been appointed the representative for Saskatchewan

to the Canadian Dental Association. We welcome Dr. Hare most heartily. Dr. Fasken has served faithfully for a long period and in his official capacity as Secretary of the College of Dental Surgeons for Saskatchewan: we still will have him as one of our official family.

A Dental Health Guide for Teachers and Parents

This leaflet was prepared at the request of a group of Public School Inspectors and is one of the activities of the Committee on Dental Health and Public Relations. Reprints of the pamphlet can be supplied at the prices given below tax included. These reprints will be printed with the words according to instructions:

Distributed by
—Dental Association

(Address)

appearing in the blank space at the bottom of the frontispiece

2000 can be supplied for	\$ 23.50
5000 can be supplied for	37.50

10000 can be supplied for 66.00
25000 can be supplied for 148.50
All orders to be sent to this office.

Resolutions Received Respecting Federal Fee Schedule

From St. Catharines Dental Society

"The St. Catharines Dental Society discussed the matter of fees as set by the department at Ottawa for dental services and the Society wished to go on record that they unanimously protested the scale of fees as set by the department for members of the Forces and those discharged from the Services but were in favor of the revised fees adopted by the Workmen's Compensation Board and sanctioned by the Royal College of Dental Surgeons of Ontario."

From The Academy of Dentistry, Toronto

"In view of the disturbance that has been caused among the membership of this organization, relative to the present fee schedule as adopted by the Federal Government for dental service for personnel discharged from the armed forces, we beg to submit the following resolution:

Whereas the present arrangements in relation to men discharged from the armed forces and referred by the Government to private practitioners of their choice, are found to be most unsatisfactory, be it hereby brought to the attention of the Canadian Dental Association that:

We, the members of the Academy of Dentistry of Toronto, feel that these men so discharged deserve the best dental service possible on being demobilized.

We also feel that the average Private Practitioner has been led to believe from the wording of the form sent out, that they are obliged to perform this Dentistry as described, and at the fee stipulated.

Whereas these fees are out of all proportion to the dental services to be required and are undoubtedly based on a type of services which are subsidized by the Government in some form.

And whereas it is our considered opinion that steps should be taken to rectify these conditions in order that these patients may have dental service performed as intended at a fee economically possible to the average

practitioner, thereby creating a more equitable feeling between patient and dentist. Any magnanimity on the part of the Government should be at the expense of the Government and not the individual dentist.

In the event that this matter has already received the favourable attention it deserves, we would respectfully suggest that the matter be given the necessary publicity. In the event that this matter has not received favourable attention we would suggest the possibility of a circular in letter form, suggesting the approved method of dealing with this type or form of what we might term charitable dentistry."

From Board of Directors of R.C.D.S. of Ontario

"Resolved that this Board cannot co-operate nor ask the members of the College in Ontario to do so, with that part of the schedule of fees of the Department of Veterans' Affairs, which deals with Dental Prosthesis, and that the C.D.A. be so notified."

From Manitoba Dental Association

"Another matter which came up for discussion was the Schedule of Fees conference at Ottawa and the subsequent arbitrary action of the Federal Authorities in respect to the schedule submitted by the C.D.A. There was considerable annoyance expressed about the whole federal action and the following resolution was unanimously passed:

Resolved that the members of the Manitoba Dental Association now in regular session assembled in Winnipeg on November 20, 1944 emphatically deplore the action of the Federal Department at Ottawa concerned in their failure to adopt in toto the schedule of fees for dental services submitted at their request by the Canadian Dental Association and respectfully suggest that immediate steps be taken to reconsider the matter."

Letter From Overseas

"Somewhere in France"

10 November, 1944.

Although "the Journal" is tardy in arriving, for today I received the September issue, it is always very welcome. I may say, that it is "the means" of maintaining contact with

Dentistry and the activities of its members back home.

Sincerely yours,
Frank L. Burns, Capt.
C. D. Corps.

Questionnaire Returns

Preliminary results of the tabulation of the first 362 questionnaires returned by members of the armed services are now available for study by the Canadian Dental Association committee on Procurement, Assignment and Rehabilitation, and the component Provincial Dental Advisory Committees. While the number of replies tabulated to date represents only slightly more than 25%

of the total, this percentage is sufficient to indicate a definite trend.

In reply to the question "Do you intend to reenter or resume private practice?", 80% replied in the affirmative and 46% expressed a desire for advice respecting location. 76% indicated that they wished to take advantage of graduate or post-graduate courses of instruction in one or more subjects before entering civilian practice.

The information obtained by the survey, is being studied by the Canadian Dental Association Committee on Rehabilitation and Dental Education and the component Provincial Advisory Committees in order that a definite policy may be formulated and plans, which will be worthy of the sacrifice made by our enlisted men, may be made well in advance of demobilization.

NEWS FROM THE PROVINCES

SASKATCHEWAN:

Saskatoon Dental Society

The officers of the Saskatoon Dental Society for 1944-45 are as follows: President, Dr. L. D. Haselton; Vice-President, Dr. D. I. Newman; Sec.-Treas., Dr. E. S. Shapera.

Three outstanding meetings have been enjoyed so far this fall; namely, Mr. Kerr, Superintendent of Government Forestry Farm, who spoke on "Horticulture" and gave the members many valuable suggestions; Mr. MacPherson, His Worship the Mayor of the City, who spoke at length on "Monetary Reform and Post-War Reconstruction"; Mr. McEachern, Commissioner of the Board of Trade, who presented a very instructive address upon the future of this city.

We have welcomed back to civilian practice, Dr. N. Gropper who has been in the C.D.C. for the past three years.

L. D. H.

MANITOBA:

Joint Meeting of Manitoba Dental Association and Winnipeg Dental Society

A highly successful meeting of Manitoba dentists was held in the Fort Garry Hotel, Winnipeg, on November 20 and 21, to take a refresher course in Operative Dentistry, given by Dr. P. G. Anderson, Associate Professor

of Operative Dentistry in the Dental Faculty of Toronto University. Dr. Anderson had come to us with a reputation as a teaching clinician almost too good to live up to. That he did make good is borne out by the attendance of about 100 or more members of the Manitoba Dental Association at the four sessions at which he presented his subjects. The keen interest displayed by everyone made it easy for Dr. Anderson, so he said, to stand up to the strain of talking for a total of ten hours in two consecutive days. When one realizes that the numbers attending each of the four sessions was over 50% of all the registered dentists at present in private practice in Manitoba it really is a record that will be difficult to surpass.

The gathering at which Dr. Anderson was the great speaker was under the joint auspices of the Manitoba Dental Association and the Winnipeg Dental Society. The presidents of both organizations, Dr. C. D. McLeod for the Association and Dr. W. J. Robb for the Society presided on the first day, and Dr. Palmer Wood, Vice-President of the Society assisted Dr. McLeod the second day.

The Annual Business Meeting of the Association was called for 4:30 on the afternoon of the first day of the convention and that the attendance kept up to the numbers who already had been sitting listening to operative dentistry for five hours of the day was another in-

dication of the keen interest the members are taking these days in their own and public welfare.

J. F. M.

Dental Nurses and Assistants

The Winnipeg Dental Nurses' and Assistants' Association held its regular dinner meeting at the St. Regis Hotel on December 4.

The President, Hazel Wylie, presided.

It was the annual Christmas party and each girl was free to bring a guest. The members had been divided into small groups, each group to be responsible for an item of entertainment. The various playlets and stunts were very well done and much enjoyed by everyone. The usual exchange of small Christmas gifts was made and the draw for the Turkey Raffle completed.

The social portion of the evening was under the capable direction of Mary Davidson, who is the social convener.

Jane McClure.

ONTARIO:

Refresher Courses In Dentistry Announced—Faculty of Dentistry, University of Toronto

In response to the requests received from dental practitioners, the Faculty of Dentistry, University of Toronto, will, during the early part of 1945, conduct refresher courses in Dental Surgery, Periodontology, and Dentistry for Children.

As these courses are now being organized, applications for enrolment should be sent as soon as possible to the Secretary, Faculty of Dentistry, 230 College Street, Toronto 2-B.

The program for the course in "*Dentistry for Children*" has been completed as follows:

MONDAY, FEB. 26, 1945—

9.00—10.45 a.m. — M. A. Cox, M.B.

Miss D. F. J. Berry, M.A.—Present Day Teaching in Preventive Dentistry.

11.00 a.m.—12.30 p.m.—S. A. MacGregor, D.D.S.—Child Psychology and Office Management.

2.00 p.m.—3.30 p.m.—S. A. MacGregor, D.D.S.—Cavity Preparation and Filling Materials.

3.45 p.m.—5.00 p.m.—R. G. Ellis, B.D.S.,

D.D.S., — Pulp Conservation M.Sc. (Dent.)

TUESDAY, FEB. 27, 1945—

9.00—10.45 p.m.—J. H. Johnson, D.D.S.—Anaesthesia for Operative Dentistry and Extractions.

11.00 a.m.—12.30 p.m.—S. A. MacGregor, D.D.S.—Interception of Malocclusion.

2 p.m.—3.15 p.m.—C. A. Corrigan, D.S.O., D.D.S.—Orthodontics for the General Practitioner.

3.30 p.m.—5.00 p.m.—R. G. Ellis, B.D.S., D.D.S., M.Sc. (Dent.)—Treatment of Fractured Anterior Teeth

WEDNESDAY, FEB. 28, 1945—

The entire day will be given over to an internationally-prominent authority on Dentistry for Children. Details of this portion of the program will be announced later. Fee: \$10.00.

Considerable interest is being shown in the six-day course in "*Dental Surgery*" which is to be given commencing April 16th, 1945, particulars of which will be published in the dental journals as soon as the time-table is completed. Fee: \$25.00.

A course in "*Periodontology*", limited to a membership of fifteen, is also being organized under the direction of Drs. H. K. Box, C. H. M. Williams and H. M. Robb for March 5th—9th, 1945 inclusive.

It is being planned to orient this course about the clinical diagnosis and treatment of gingival and periodontal diseases including Chronic Gingivitis, Necrotic Gingivitis and Periodontitis.

Emphasis will be placed on diagnosis based on an understanding of the histo-pathology of these diseases and their co-relation with clinical conditions.

Fee: \$25.00.

Ontario Dental Nurses' and Assistants' Association

Patriotic Donators and Knitters Club:

Letters are beginning to pour into the office of our War Convener in acknowledgement of the 51 Christmas parcels we sent overseas last October. Lieut. Col. Denholm, O.C. Number 5 Company, C.D.C. praises the contents of the parcel. . . "your parcel contained the best assortment of useful articles

I have had the pleasure of distributing to the personnel of my company and I assure you every item was greatly appreciated." Lieut. Col. C. L. Strachan, O.C., Number 4 Company, C.D.C., sends to all our members a "thank you" from his men and their best wishes for 1945.

TORONTO AFFILIATED ASSOCIATION: The members of our Association were invited to attend the Annual Winter Clinic of the Academy of Dentistry, Toronto. Many were able to attend the luncheon and enjoyed the address, "If I Were A Dentist," by W. Harold Young, D.D. We were very proud of our Toronto member, Mary McCollum, who was guest soloist. Mary is leaving in the near future for New York City to join the Junior Metropolitan Opera. Refreshing entertainment was supplied at the dinner by Sergeant Shaw and a group of talented young ladies. Table clinics were presented from 8—10 p.m. It was a complete day of learning and all who attended received many practical tips.

BRANTFORD AFFILIATED ASSOCIATION: The Brantford members enjoyed a talk from Miss Margaret Pickell of the Public School staff on "The Amsterdam Conference."

Arlene Jemison Greeny

Dentists' Wives Elect Officers

The Ottawa Dentists' Wives' Association held a well-attended meeting in November when the following officers were elected: Past President, Mrs. S. W. Bradley; joint Presidents, Mrs. Rex Slemon and Mrs. W. McCutcheon; Vice-President, Mrs. Harold Armstrong; Recording Secretary, MRS. W. O. Gardiner; Treasurer, Mrs. S. G. McCaughey; Corresponding Secretary, Mrs. E. F. McGregor; Program, Mrs. Allan Armstrong; Social, Mrs. R. Larmour, Mrs. H. Stanley; War Secretary, Mrs. E. F. McGregor; War Chairman, Mrs. W. Flora; Press, Mrs. W. McCutcheon.

Coloured motion pictures were shown by Mrs. G. H. Frisby. Recitations were contributed by Miss Christina Drevor, and refreshments were served.—Ottawa Journal.

Toronto Study Club Dental Technicians

The November meeting of the Toronto Study Club of Dental Technicians was held at the Royal York Hotel on November 15.

Dr. J. B. Pepper of Toronto, clinician of the evening, gave the members a real treat in his clinic on Grinding and Staining of Teeth. New ideas on the grinding and new methods of applying stain had the boys "on their toes".

Following his discussion of color combination, Dr. Pepper showed them the "know how" and amazed the members with his easy method of color application in changing shade and staining teeth.

Following the clinic, J. R. Price moved a vote of thanks and presented Dr. Pepper with a gift from the club.

C. E. Spence.

Essex County Dental Association 1944-45

President	—Dr. L. J. Fenech
Vice-President	—Dr. Norm Robinson
Secretary	—Dr. Dennis Barkoff
Past President	—Dr. Omar Baker
Chairman of Dental Public Health Program	—Dr. L. Crowley
School Dentists	—Dr. S. Brown
	—Dr. C. Biehn

The Essex County Dental Association, with the new president, Dr. L. J. Fenech in the chair, opened its season's activities on October 12, with the usual business meeting conducted.

Dr. Frank Martin, of the Prosthetic Department of the Faculty of Dentistry of the University of Toronto gave a very interesting and instructive afternoon and evening Clinic.

The Afternoon Clinic: "Crown and Bridge Prothesis."

The Evening Clinic: "Immediate and Modified Immediate Denture Construction Service." The technique was illustrated by slides and motion pictures, which were excellent.

On November 16, Dr. J. H. Johnson, Associate Professor of Dental Surgery and Anesthesia of the Faculty of Dentistry of the University of Toronto was guest of the society. The afternoon clinic held in the surgery of Hotel Dieu Hospital demonstrating (1) practical application of general anesthesia for the general practitioner, using nitrous oxide and oxygen anesthesia in dental surgery, (2) direct application of nerve block anesthesia for maxillary and mandibular cases in dental surgery. The evening clinic: (1)

slides illustrating mandibular nerve block anesthesia and (2) motion pictures illustrating labial frenum operation. Dr. Johnson's clinic was most helpful and a wealth of practical suggestions were given to all members present.

Other news of the year's activities in Essex County Dental Society follows: Our society has been working out a Dental Public Health Program to meet the needs of our community. Dentistry must take its responsibility in Public Health. If we work out our own program, governments will have no need to interfere, but rather will support our efforts.

The Essex County Dental Association has purchased their own sound machine. Many thanks to Dr. T. R. Marshall, Dental Public Health Secretary, for his support in helping us secure it. This sound machine is being used in the Dental Public Health educational programs in our schools. The Essex County Dental Association is greatly indebted to Dr. Marshall for his skillful diplomacy in giving us our first success, in co-operation with the Public Schools re Dental Public Health education. Further the Society today has practically achieved its desire in having the Dental Health Programs under the jurisdiction of the Board of Health. The Medical Officer of Health, Dr. Howie, has been very co-operative with the dentists in their desire to promote dental education and treatment. The harmonious manner in which the Medical Officer of Health and the Society have been able to carry out their program has shown us the necessity of all working together.

The President has been interested in Scholarship funds for the undergraduates of the Faculty of Dentistry in Toronto and our Society has gone on record in favour of supporting such funds. The graduates should consider the possibilities of scholarships and set an example for incoming younger men in the various Dental Societies. The students would have something to work for, and an ideal in dentistry that would remain with them upon graduation. These scholarship funds could be a token of appreciation of the service rendered the profession by the Dental College and our Professors.

The Essex County Dental Association feels that to keep up to date in our activities, even in time of war, a study club would



DR. L. J. FENECH
PRESIDENT, ESSEX COUNTY DENTAL
ASSOCIATION

broaden our program. This study club while in its embryonic stage will prove its utmost success with time and effort, and its future in this Society appears to be excellent. The coming year will see the formation of two or three successful groups.

Our Society was represented at the Detroit District Dental Review on November 9 by the following Clinicians:

Dr. L. J. Fenech—(a) A time-saving method for construction of three-quarter crown. (b) Modified Immediate Denture Construction for the short lip and protrusive cases.

Dr. F. J. Furlong—Preventive Orthodontia for the General Practitioner.

Dr. L. L. Crowley—Technique for the removal of roots for the General Practitioner.

Our Association has increased its membership dues from three to five dollars annually, so as to be able to function more actively and undertake more projects. Our meetings have been enlivened by programs from our new sound projector. Our members have

been working with the Discipline Committee of the Royal College of Dental Surgeons with respect to illegal dental practice in our district.

Finally our Association had its Annual Christmas Party, with the wives of the members invited. A venison dinner was served. Music, featuring a piano concert, was part of the entertainment during the dinner hour. After dinner everyone played Keno with turkeys as prizes for twelve rounds. Wives of some of our members contributed to the program with vocal music and readings. The whole party was a grand success. The evening closed with some classical numbers on our sound projector and God Save the King.

L. J. F.

QUEBEC:

Dental Hygiene Commission of the College of Dental Surgeons of the Province of Quebec

Honorary President:

The Honourable Minister of Health and Social Welfare of the Province of Quebec.

Honorary Vice-Presidents:

The Chief of the Dental Hygiene Division of the Provincial Ministry of Health and of Social Welfare.

The Dean of the Faculty of Dental Surgery of McGill University.

The Dean of the Faculty of Dental Surgery of Montreal University.

The Director of Health Service of the City of Montreal.

Ex-Officio:

The President of the College of Dental Surgeons of the Province of Quebec.

The Registrar of the College of Dental Surgeons of the Province of Quebec.

President: Dr. Gabriel Lord.

Vice-President: The President of the "Montreal Dental Club".

Secretary-Treasurer: Dr. Ephrem Vinet.

Members: Drs. D. P. Mowry, Honoré David, R. R. Lalonde, Claude de Grandmont, L. N. Martin, N. P. Salomon of Montreal; Drs. Jean Dallaire and Gustave Ratté, of Quebec; Dr. Valmore Olivier, Sherbrooke; Dr. Auguste Massicotte, Three Rivers; Dr. C. E. Laurin, Hull; Dr. Yves Laffleur, St. Hyacinthe; Dr. C. Contant, St. Jérôme; Drs. C. Aberdeen McCabe and J. A. Prigent, Valleyfield.

Publicist: Head of the Secretarial Staff— Claude Bourgeois

The Executive Committee of the Dental Hygiene Commission of the College is as follows: The President and the Registrar of the College; Honorary Vice-President, the Dean of the Faculty of Dental Surgery of Montreal University, Doctor Ernest Charron; the President of the Commission, Dr. Gabriel Lord; the Vice President of the Commission; and Dr. D. P. Mowry, Honoré David, R. R. Lalonde and Claude de Grandmont. The Secretary of the Executive Committee is Dr. Ephrem Vinet.

(All mail and communications should be addressed as follows:)

Dental Hygiene Commission of the College of Dental Surgeons of the Province of Quebec,
c/o Dr. Gabriel Lord, President,
1426 Amherst Street,
Montreal, Quebec.

Montreal Dental Club

On November 20, this Club held its regular meeting with the President, Dr. Reginal Winn in the chair. Dr. I. K. Lowry, Assistant Professor of Prosthetics, was the speaker of the evening. His subject was "A Review of Some Procedures which help to Forestall Trouble in Full Denture Construction". Dr. Lowry covered his subject carefully going into many details of mouth reconstruction.

He dealt first of all with those cases where the natural teeth are still retained by the patients, but are about to be lost in favour of artificial ones. In these cases, Dr. Lowry recommended: 1. Profile Record; 2. Shade of Individual Teeth; 3. Impression of Occlusal and Incisal Edges of Permanent Teeth; 4. Impression of Twelve Anteriors in Centric; 5. Need for Alveolectomy should be thoroughly investigated before the extraction of teeth; 6. Photographs or face masks if desired.

He covered many other phases of denture work. In conclusion he mentioned some of the "Don'ts" in denture practice.—1. Don't promise results that you may not be able to deliver. 2. Don't be in such a hurry that you cannot listen to the patient's story. 3. Don't disbelieve what the patients tell you they feel, unless you have proof. 4. Don't hurry or be impatient when taking wax relation records.

The members of the Club were delighted to

see and hear Major Edward Bourke who has returned from the Italian Front after being away from Canada for nearly five years. Major Bourke addressed the gathering in his usual sincere and vigorous manner.

E. M. L.

Mount Royal Dental Society

At a meeting of this Society held on October 17, Dr. H. H. Pearson read a paper on "Endodontia." He made a plea for the conservation of more teeth and condemned the ruthless, wholesale extraction of teeth that could be of long and valuable service if properly treated. He described a standardized technique of Root Canal Therapy, that could be used by the general practitioner. The paper was illustrated by x-ray slides.

Dr. John W. Singer followed with a lecture and very interesting demonstration and technique on root canal treatment and filling with emphasis on the putrescent pulp.

At a meeting of this Society on November 7, Dr. N. P. Solomon presented a clinic on "The Use of the Three Quarter Crown as Bridge Abutments" illustrated by very fine models.

His able explanation and demonstration of the technique involved, gave every member present a chance to pick up some new point of interest.

Montreal Dental Nurses' Association

This year, as in the past, the Montreal Dental Nurses' Association in conjunction with the Montreal Dental Club, held its annual convention in the Mount Royal Hotel on October 25-27.

Although the nurses did not put on any table clinics, lectures and exhibits provided answers to the ever-increasing wish for knowledge.

The two luncheons given for the nurses were well attended; the speaker on the first day being Mrs. Patricia Molson of Eaton's Fashion Bureau, assisted by her models, on "Fall Fashions". The following day, Mr. J. Sinclair Grant, of the London Life Insurance Co., chose as his subject, "The Patient's point of View".

Lecturers to the Dental Nurses included, Lt. Col. W. J. Gibson and Major R. Foote, C.D.C., Toronto; Mr. G. L. Long, Bell Telephone; Mr. R. Copeman and Drs. S. A. MacGregor,

A. R. Winn, M. L. Donigan, and A. L'Archeveque who spoke on the possibility of a school of Dental Hygiene being set up in the province.

Discussed also for the benefit of the new dental nurses was the setting up of a committee to teach them the fundamental requirements of their employers.

The Annual Meeting was held and the Executive for the forthcoming year is as follows: President, Mildred Fincher; Vice-President, Gene Newell; Recording Sec., Mel. Rundle; Corresponding Sec., Norah Johnson; Treas., Marie Keenan; Program Convener, Kaye Burns; Publicity, Joan M. Green; Social and Reception, Lillian Paterson; Membership, Florence Lemoges and Lillian Paterson; Clinic, Margaret Good (retiring president).

Joan M. Green.

NEW BRUNSWICK:

Saint John Dental Society

The international celebration of the 100th anniversary of the first use of nitrous oxide as an anaesthetic by Dr. Horace Wells, in Hartford, Conn., was observed by the Saint John Dental Society at its dinner and annual meeting at the Admiral Beatty Hotel.

Dr. L. A. Langstroth was elected President of the Society and the dinner and meeting were presided over by Dr. James B. O'Brien, the retiring President.

Dr. R. J. Collins, Superintendent of the Saint John Tuberculosis Hospital, addressed the meeting on "Anaesthesia" in which he paid tribute to Dr. Wells, a member of the dental profession, who first discovered the use of nitrous oxide as an anaesthetic in December, 1844.

He discussed at length the development of that great discovery and its effects on the human race. Dr. Collins pointed out that as the result of that discovery, surgery was made possible and without it we would still be in the dark ages where all those who needed surgical attention would die. The general anaesthetic was one of the greatest of human gifts, he declared, and it was made by a member of the dental profession.

Dr. Collins then went on to discuss the development of anaesthesia in general. Another dental surgeon, Dr. Morton, discovered the use of ether as an anaesthetic, followed by chloroform. He dwelt at length on the modern practice of anaesthesia in the healing

arts, which included the newer discoveries of novacaine groups and the barbiturates. The use of blood plasma was one of the modern results, he stated. The progress made in the last 10 years in chest surgery was due to the perfection of anaesthesia, he emphasized.

The guest speaker was introduced by Dr. F. C. Bonnell.

Officers elected in addition to Dr. Langstroth were Dr. T. G. Manning, Vice-President; Dr. L. O. Leger, Secretary, and Dr. H. W. MacDonald, Treasurer. Additional members of the Executive elected were Dr. F. C. Gorham, Dr. James B. O'Brien and Dr. J. R. Hutchison.

BRITISH COLUMBIA:

Vancouver Dental Society

At the regular monthly meeting held in the Hotel Vancouver on November 7, the guest speaker was Dr. D. Sharples of Everett, Washington. He spoke on "Nerve Block and Extraction for the average Practitioner." Dr. Sharples had some very useful tips for Mandibular and other injections. These and other points were illustrated at a table clinic after his talk.

A letter from Mr. G. Mundie of the Department of Labor was read. This asked for the co-operation of the Society in the rehabilitation training of girls discharged from the Armed Forces.

In order to send some Christmas cheer to the Dental Corps boys overseas, John Hill, in his usual breezy manner, conducted a raffle, to net about \$60.00. Dr. Parkin held the lucky number and felt good about that as we hope the fellows overseas will, on receiving their parcels.

Dr. L. G. Chapman, a graduate of the University of Toronto, was elected to membership in the Society. Dr. Chapman is now practising orthodontia in Vancouver.

Among those noticed; Dr. (Major) Garnet Montgomery who has been on a sight seeing tour, London and India included.

The December meeting of the Society was held on the 5th, in Salon A, Hotel Vancouver.

Dinner was served at 6:45 p.m. and the business meeting followed.

Dr. Norman Scott, the President, was in the chair.

The following were elected to membership in the Society:

Dr. J. K. MacNicol, a Graduate of Northwestern University; Dr. T. Sawchenko, a Graduate of the University of Toronto. Dr. M. Mathison, a Graduate of North Pacific College.

The matter of rehabilitation of girls discharged from the armed forces was again brought up for discussion and the President announced that the Executive had decided to keep this open for a time to permit the fullest discussion. It was felt that the Society should do all in its power to help in the matter.

Reports were given of the activities of the Diagnosis and Prosthetic Study Clubs.

Dr. Lea, Registrar of the College of Dental Surgeons of B.C., gave a report of the recent activities of that body.

A letter was read asking for the support of the Society on behalf of the proposed new Nurses' Home for the Vancouver General Hospital.

The Winnipeg Dental Society extended an invitation to this Society to have one of its members, who might be attending the meeting of the Chicago Dental Society, stop off at Winnipeg to address the February meeting.

The speaker for the evening was Mr. J. Cunningham, one of the two Game Commissioners for B.C. He had a wealth of information on the subject and had a fine showing of colour motion picture films on hunting and fishing in B.C. This was quite a departure from the usual and was very much enjoyed by the Society. It was really an educational course on our own Province.

College of Dental Surgeons of B.C.

There are at this time (December, 1944) seven more dentists practising in British Columbia than last year, that is to say, there were 313 members of the College practising within the Province in 1943 and 320 in 1944.

During the year 1944 there have been seven deaths, the increase in dental population having been made up by additional registrations, as hereunder:

(a) Eight persons have passed the examinations and been registered, seven of whom

are in the Canadian Dental Corps and one in practice.

- (b) Twelve persons registered Dominion Dental Council Certificates, two of whom are in the Canadian Dental Corps and ten in practice.

In addition to the registrations which have taken place this year, four persons who registered Dominion Dental Council Certificates in 1943 have commenced practising this year, all of which accounts for the increase in dental population.

ALBERTA:

Edmonton Dental Society

On December 5 the Edmonton Dental Society held its regular monthly meeting at the MacDonald Hotel. Dr. A. E. Archer of Lamont, Alberta, Past President of the Canadian Medical Association was guest speaker, and dealt with aspects of the proposed Federal Health Insurance Scheme. He was introduced by Dr. R. A. Rooney, President of the Canadian Dental Association, who referred to him as a man held in high esteem, by both professions, and one who could explain our present day problems possibly better than any one he knew.

Dr. Archer began his discussion by referring to the fortunate position of the Canadian Dental Association in having Doctor's Rooney, and Gullett guiding their affairs at this time. He mentioned the advances made in the profession since confederation, showing an increase of from 70 cents to \$3.50 per patient, per day, for the cost of hospitalization. Comparison was made of the types of equipment used then, and the elaborate diagnostic instruments of the present day.

Today people are insurance-minded and hence we find our citizens protecting themselves against all the vicissitudes of life.

Before the war 41 countries had some form of health insurance, but none in its entirety seemed to be wholly satisfactory for our country. The pressure today on the politician seems to have eased a little as the tax-payer investigated the intricacies and studied the cost.

Dr. Archer claims that whatever system is adopted, it must be fair to those giving as well as to those receiving. A system of health insurance handled by a state commission, or body, or selected groups of individuals removed from politics seemed to be desired. Now is the opportune time to agitate.

A suggestion by someone, and well worth thinking about, is the formation of a Royal Canadian Health Corps, which would incorporate all health services, medicine, dental and their many other branches, whose sole object would be to build better health.

In closing Dr. Archer referred to the kind relation which has existed between the two professions in the past, and expressed the hope that the future might make these ties more secure.

The meeting was well represented by local members as well as those from the American Dental Corps, and the Canadian Dental Corps.

Calgary Dental Nurses

The third meeting of the Calgary Dental Nurses' Association was held on November 13.

The President introduced Mr. K. Seaborne as the guest speaker who gave a very enjoyable talk on "The Value of Nutrition."

EMPIRE NEWS

Qualifications for the Study of Medicine

Excerpt from Guy's Hos. Gazette, October 28, 1944.

"Unsuitability shall be the sole barrier to anyone desiring to study Medicine"; this statement from the Goodenough Report raises a very controversial point. On what standards can we judge the man who wants to become a doctor? Sir William Jenner demanded three

outstanding qualities: "He must be honest, he must be dogmatic, and he must be kind." But these alone, admirable as they are, are not enough—above everything a doctor must be a constant seeker after knowledge and truth; in short, he must remain a student throughout his whole life. The rigid mental celibacy and self-denial that Osler demands of the student

and young doctor are theoretically sound and are, no doubt, the goal toward which all should strive, but for us lesser men a more practical and less Utopian ideal should be propounded.

F.D.S.R.C.S.

The Council of the Royal College of Surgeons of England has decided, subject to discussion with representatives of the dental profession, to make an application immediately after the termination of hostilities for a Supplemental Charter under which the College will be empowered to grant a Fellowship in Dental Surgery, F.D.S.R.C.S.Eng. The standard of knowledge demanded will naturally be high but with the institution of the Fellowship ambitious students of dental surgery will be able to look forward to obtaining a qualification in their own subject, comparable to that open to students of surgery, without being under the necessity of having to devote a

number of years to the study of subjects which may have little or no direct bearing on their life's work.

Flying-Bomb Damage

The Council of the British Dental Association is happy to report that with the exception of superficial damage towards the close of the flying-bomb attack when a missile fell in Berkeley Square, headquarters has suffered little or no damage. On the occasion referred to, Sunday morning, the only member of the staff on the premises was Mrs. Lindsay, who suffered some slight shock.

It appears that dental practices have been somewhat more fortunate with regard to damage in the recent attack than was the case in the 1940-41 attacks on London. Up to July 21 not more than three practices had been directly hit or were known to Headquarters to have suffered direct damages.—Br. D. Jour., Nov. 17, 1944.

GENERAL NEWS

Appropriation For A.D.A. Motion Picture Approved

An appropriation of \$25,000 for the production of a motion picture on the activities of the American Dental Association was approved by the House of Delegates at the recent Annual Meeting.

Accreditation of Dental Laboratories

The House of Delegates of the American Dental Association, acting upon the recommendation of the Prosthetic Dental Service Committee, approved a plan for the accreditation of dental laboratories at the recent Annual Meeting in Chicago. Adoption of the plan will be voluntary for all of the constituent societies.

The approved recommendations provided (a) "that a dental prosthetic service committee be appointed in each constituent state dental society to which will be assigned the supervising of accreditation in the respective state"; (2) that the profession's attention be called to the legal provisions governing the relation between dentistry and laboratory; (3) "that dental laboratory owners and technicians

be advised of illegal practices by the proper authorities"; (4) "that state dental societies and dentists encourage laboratory associations and dental technicians to adopt a code of ethics for the conduct of their association and craft in relation with each other and their service to the profession.

A Recent Poll on Medical Care

From Editorial in Am. Jour. of Ortho. and O. Surg. November, 1944.

In a recent poll conducted by a group of nationwide civic and business organizations directed by businessmen, the attitude taken on the medical-care angle of the social security setup is interesting and revealing to the health professions.

Policy statements on the basis of a preliminary count add up to something like this: public action to provide protection against non-industrial and occupational sickness should not be taken until a reasonable time has expired to allow the private effort of employers to supply such security.

The poll revealed that there is majority approval given to the statement that employers

should provide for their employees some protection against sickness; also, that in the event of such protection being given by public action, it should be done at state and local levels of government rather than at the federal level.

Majority gave approval to the statement that voluntary group plans should be allowed to operate as auxiliary to government plans, and that voluntary group effort to provide more adequate medical service for all of the people should be urged.

The majority said that there should be avoidance of a system of socialized medicine under which all of the medical personnel would become government employees and the free choice of doctor by patient and of patient by doctor would be impaired.

The above poll of opinion is important because it comes from a cross section of business people rather than from political or other biased sources.

The Wagner bill as now written passes dentistry with a gesture and leaves it to the Surgeon General and the Social Security Board for study and legislation, to be called for two years subsequent to the passing of the Wagner Bill. The Health Insurance Plan of Greater New York also ignores dentistry, though on its roster of incorporators it includes representative leaders in many other fields. Dr. Ray Lyman Wilbur, in the Journal of the American Medical Association, says that it is inevitable that more and more subsidiary help will be needed to conserve the time of carefully trained physicians, including nurses and all kinds of technical assistants. This observation is interesting because it inferentially leaves dentistry in the same speculative position as does the Wagner bill; therefore, it looks as though the time had arrived for plans to be made from within the profession and its subdivisions.

Mail Order Denture Violators Fined \$3000

The Federal Court fined the officers of the U.S. Dental Co., 1555 Milwaukee Avenue, \$3000 on the November 22 for illegal procedures. Federal Judge John P. Barnes ruled that the company was guilty of violating the law which prohibits the making of dentures

from casts mailed to laboratories and not made by a licensed dentist, holding it illegal for patients to secure their own impressions. —Fortnightly Rev. of Chi. D. Soc.

Graduate Medical School Includes Dental Course

The University of Pennsylvania's Graduate School of Medicine has announced that in the future it will extend its activities to include graduate students in dentistry. The activities will be under the direction of John W. Ross, D.D.S., who has been appointed Vice Dean for Dentistry in the Graduate School of Medicine, and who will work in co-operation with the vice deans for other medical studies under the direction of the Dean of the Graduate School of Medicine. Courses are being planned in oral surgery, orthodontics, prosthetics and oral medicine-periodontics.

Dentistry in Germany Today

"To have your teeth attended to in Germany today you must fill up many forms and wait a long time," a neutral recently arrived in Stockholm from Germany told Denis Weaver, News Chronicle special correspondent.

"Dentists," he said, "can only see private patients for two hours in the afternoons. The rest of the time they work for the Army. Materials are bad and fillings tend to fall out a week or so after being put in."—Dental Record.

Gains in Life Expectancy

Life expectancy of American people in 1943 reached 64.8 years. This is the highest on record and shows a gain of 15½ years since 1900. An announcement by the Metropolitan Life Insurance Company points out that a greater proportion of persons now than ever will live to age 65, the normal retirement age. More than two thirds of persons now between ages 25 and 35 will reach age 65, the average person can still look forward to living 13.12 years longer. — N.Y. Jour. of D.

IN MEMORIAM

Lawford Gard Pullen of St. Thomas, Ontario, aged 83, died in Havana, Illinois, recently.

Dr. Pullen is survived by a son, a daughter and a sister.

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Leo R. Garvey, of Guelph, Ontario, aged 51, died November 20. He was graduated from the Royal College of Dental Surgeons of Ontario in 1921 and for the next two years practised at Parry Sound, moving to Guelph in 1923. He was a member of the Church of Our Lady and a Knight of Columbus.

Dr. Garvey is survived by his parents, six brothers and one sister.

•

Benjamin O. Fife of Toronto, Ontario, died suddenly at his home on November 26. He was graduated from the Royal College of Dental Surgeons of Ontario, and served as a member of the staff for 25 years.

Dr. Fife is survived by his widow, one

daughter and one son. Another son, P.O. Gordon Fife, R.C.A.F. was lost when the ship on which he was going overseas in April, 1943, was torpedoed.

•

A. H. Mabee of Gananoque, Ontario, aged 75, died December 4. He was graduated from the Royal College of Dental Surgeons of Ontario in 1891. He practised in Gananoque over fifty-one years and was made an honorary member of the Ontario Dental Association in 1941. He was a past president of the Eastern Ontario Dental Association and a member of both Oddfellows and Masonic Lodges. For 22 years he was secretary of the Board of Education, as well as taking an active interest in such community affairs as the Horticultural Society of which he was for some time the Secretary. He was also secretary of the Gananoque Cemetery Co. for several years.

He was a member of the Session in the United Church.

Dr. Mabee is survived by his widow, one daughter, three sons, two brothers, as well as eight grandsons and one grand-daughter.

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EDITORIAL

Études

Secondaires Classiques

vs

Primaires Supérieures ou Scientifiques

Les plus de trente ans n'ont sûrement pas oublié les luttes homériques que nous avons dû soutenir avant d'obtenir que les candidats à la chirurgie dentaire soient formés intellectuellement. A peine avons-nous eu le temps de constater les changements radicaux opérés par cette réforme dans la valeur morale et intellectuelle de notre classe étudiante, que déjà l'on s'empresse d'assiéger les représentants de notre profession afin de les engager à revenir sur leurs pas pendant qu'il en est encore temps. On voudrait faire vite parce que parmi ceux qui ont en main les rênes de nos destinées, il se trouve encore un certain nombre de produits de l'ancien régime susceptibles d'être plus faciles à fléchir parce qu'incapables de concevoir les objections. J'ose croire que ces partisans de la retraite font fausse route. Ils sont plus nombreux qu'ils ne le pensent ceux qui, chez nous, sans culture classique, ne sont pas sans intelligence. Ils ont, avec l'âge, compris par comparaison leur propre déficience et quelle formation ils aimeraient avoir. Ils ne peuvent pas tout expliquer ou prouver la grande vérité que leur bon sens naturel a perçue, mais ils sentent si profondément la malaise qui les étreint que, moralement convaincus de ce qui leur a manqué, ils seront demain les

adversaires acharnés d'une nouvelle reculade. S'il s'en trouvait parmi eux et même chez des classiques que la question laisse dans l'indifférence, parce qu'ils n'ont pas eu l'occasion d'y réfléchir ou que les nécessités et les tracasseries de la vie ont empêché de voir ce qui se passe autour d'eux, j'espère que la courte étude qui va suivre les réveillera dans la réalité et qu'ils songeront à leurs fils, à leurs compatriotes et à leur patrie.

Jetons ici quelques notes historiques. Juste ce qu'il faut pour éveiller la curiosité. Ceux qui voudront plus amples renseignements n'auront qu'à consulter les auteurs cités. Ce n'est pas d'aujourd'hui que les réformateurs vers le haut ou vers le bas doivent s'affronter au sujet de la formation la plus utile à la jeunesse. Chaque fois qu'une perturbation vient troubler une nation, un pays ou le monde, chaque fois les débats sur la formation de la jeunesse recommencent. Et, fait remarquable, depuis des siècles, malgré les hauts et les bas, les tourments à gauche, à droite, seules quelques modifications subsistent, mais on revient toujours à la formation classique parce que, dans tous les domaines et de toute évidence, c'est encore elle qui nous a donné les plus grands bienfaiteurs de l'humanité.

Depuis W. Lyon Mackenzie et George Brown (avant 1867), ces ingérences dans nos méthodes d'enseignement par des gens presque tous sans compétence en la matière ont trouvé chez nous des complices peu soucieux de nous voir perdre le contrôle de nos destinées en nous entraînant dans toutes sortes d'associations où les droits les plus positifs et les plaidoyers les plus irréfutables seraient toujours écrasés par un vote majoritaire.

Depuis 1898, la même association avec Harper, les Drs Roddick et Robbins, tente de nous faire abandonner la direction de notre enseignement aux mains du fédéral. Après plusieurs échecs retentissants, la Dominion Educational Association devient la National Council of Education qui, en 1919, recommence ses tentatives sous la direction du major Ney, fraîchement arrivé d'Angleterre. Mais M. Cyrille Delâge, aidé du R. P. McMahon, s.j., recteur du collège anglais de Régina, neutralisèrent ses efforts. Cependant, par la même occasion et parce qu'on croyait le moment favorable, le sénateur Rufus Pope, des Cantons de l'Est, commit l'imprudence de jeter le masque. Les allemands étaient écrasés. Et restait maintenant la province de Québec dont on n'avait plus besoin pour la guerre. Il proposait donc, en plein sénat, qu'on établisse un système d'écoles nationales (mai 1919) en déclarant fort patriotiquement: "Je suis absolument opposé à la reconnaissance des droits des minorités. Je crois que la plus grande sottise commise par l'Acte de la Confédération, sottise qui a causé tant de mal à notre peuple, ce fut la reconnaissance des minorités, qu'elles fussent d'une race ou d'une autre."¹

En lisant les débats de la Chambre des Communes du 18 avril 1920, on constate que M. Lapointe fit échouer une tentative semblable de M. Edwards, député de Frontenac. Et depuis, ces messieurs sont tenaces, on a changé de tactique. C'est par des conférences devant les membres des clubs sociaux qu'on veut affaiblir notre résistance. Si l'on n'y arrive pas par l'audace, peut-être y réussira-t-on par la ruse. Aussi convoque-t-on de temps à autre de ces réunions où l'on espère que les délégués, voulant rivaliser d'amabilité, oublieront la prudence et laisseront les envahisseurs prendre pied dans leur domaine. Dans une de ces conventions à Québec, le major Ney se fait flatteur et déclare que notre système d'éducation "devrait servir de modèle à celui des autres provinces," et, comme les représentants de Québec, on proclame que: "les provinces doivent garder jalousement leur autonomie scolaire, telle que définie par l'Acte de l'Amérique Britannique du Nord." C'en était fait et les centralisateurs de l'enseignement au Canada croyaient bien par cette tactique anesthésier nos défenseurs. Ils avaient compté sans la clairvoyance de M. Taschereau qui, avec une finesse et une ironie cruelle, leur fit comprendre qu'à travers ce voile il avait bien saisi leur pensée. "Si je comprends bien, jamais il n'est entré dans vos desseins de travailler de longue main à l'établissement au Canada d'un régime scolaire uniforme qui enlève-

¹Débats du Sénat, 1919, pg. 295.

rait tout caractère aux deux races (c'est-à-dire à la nôtre seulement) qui constituent notre pays et mettrait fin à une initiative et à une concurrence des plus bienfaisantes. La clef de voûte de notre Confédération se trouve dans l'attribution à chaque province d'une autonomie complète en ce qui concerne l'Instruction publique, et le jour où l'on portera atteinte à ce qui nous tient unis tout l'édifice national s'écroulera." Et le patient trop clairvoyant venait de jeter au crachoir le champagne empoisonné qu'on lui offrait.

De congrès en congrès on modifiera la tactique, redorera la pilule, on changera le nom de l'Association pour en arriver à demander seulement des subventions du fédéral aux provinces, comme si un gouvernement qui paierait les frais d'éducation quelque part n'essaierait pas de contrôler l'usage de ses octrois. C'est incompréhensible qu'une maison canadienne française d'enseignement en soit venue à se réclamer d'un programme préconisé par la Canada and Newfoundland Education, Association formée, comme l'a écrit le R.P. Louis de Léry, s.j., de fonctionnaires irresponsables pour une large part et de simples particuliers sans mandat à cet effet. Ignore-t-on que, dans le Québec, l'enseignement relève des Comités catholiques et protestants du Conseil de l'Instruction Publique et non d'une association quelconque.

On ferait bien de lire à ce sujet la petite brochure du R. P. de Léry: "Ecoles Nationales," publiée par l'Ecole Sociale Populaire.

Comme je n'ai ni la mission ni l'envergure nécessaires à défendre tout notre système d'enseignement, je crois être chez nous un de ceux qui ont non seulement le droit, mais aussi le devoir de s'élever contre ceux qui du dehors ou du dedans voudraient nous pousser sur la pente de la déchéance.

Il y avait autrefois chez nous une Ecole Dentaire dont des individus profitaient fort commodément, et où des jeunes pouvaient s'enseigner les uns aux autres les rudiments de chirurgie dentaire suffisants pour gagner largement leur vie. Or, il arriva qu'aux gradués de cette Ecole, Lennoxville accorda le titre de docteur, que Laval et McGill avait toujours refusé. Plus tard, l'Université Laval, pour des raisons que l'histoire écrira, consentit à accorder elle-même le parchemin désiré. En résumé, on se rendait compte que le programme de ces écoles prenait en Amérique un caractère professionnel, que les chirurgiens dentistes se rapprochaient de plus en plus de la médecine et que, comme tels, ils entraient dans la classe des professions libérales. Il convenait donc que l'enseignement de cette profession passât sous la direction universitaire. C'est ainsi que notre école devint la Faculté de Chirurgie Dentaire de l'Université de Montréal, et c'est tant mieux. Depuis, l'enseignement de la chirurgie dentaire a fait un pas considérable vers l'enseignement supérieur universitaire en exigeant que les jeunes, avant de s'engager sur une route qui mène au doctorat, donnent l'assurance d'une formation conforme au but que se propose une Université, et à l'instar de la médecine et du droit, exigea le B.A. En effet, le but d'une Université n'est pas de trouver un gagne-pain aux individus ou de les mettre en état de faire beaucoup d'argent le plus tôt possible. L'université s'est constituée partout dans l'intérêt de toute la société. Sa fin principale est de parfaire la formation des futurs professionnels. Il faut donc qu'elle les laisse en état de pratiquer quelque chose et d'observer à côté et au-delà de ces jalons. C'est ce qui la différencie des institutions d'enseignement primaire, fut-il supérieur, et d'enseignement secondaire. Il faut que le gradué, par ses analyses et ses déductions, la philosophie de sa science en somme, soit en état de porter ses connaissances un peu plus loin qu'il ne les a prises, sur la route du progrès. C'est ainsi qu'elle formera des citoyens capables par la droiture de leur jugement, l'étendue de leurs connaissances, de guider leurs compatriotes vers une civilisation toujours meilleure. La civilisation, en effet, toujours en mouvement, s'améliore ou s'avilit selon que les citoyens s'humanisent ou s'individualisent. S'ils apprennent à se connaître, à se comprendre, ils apprendront à s'aider, à se respecter. S'ils s'individualisent ou ne voient plus que leur personne, ce sera l'égoïsme, la force, la lutte et par conséquent la haine, la barbarie. Chez un peuple, la grandeur et

la puissance ne seront possibles que si les forces spirituelles dominent les appétits inférieurs. L'Université ne doit donc pas descendre ou condescendre aux désirs de ceux qui, perpétuellement, voudraient l'obliger à s'occuper de leurs petites fins particulières et utilitaires. Afin de former le jugement et les connaissances de ceux qui la fréquentent, l'Université n'a que deux moyens: d'abord, exiger que tous ceux qui viennent chez elle chercher le haut savoir attendent d'avoir la maturité physiologique et intellectuelle voulue pour être capables de l'absorber. Quelle que soit en effet la précocité de l'intelligence, elle n'est pas toujours accompagnée d'une aussi vive compréhension de la vie et de ses expériences, ni du sérieux que nécessite l'application pratique aux contingences humaines de connaissances trop facilement acquises. En second lieu, l'Université doit s'assurer que ces mêmes jeunes gens aient reçu une instruction désintéressée, c'est-à-dire une formation générale capable de servir de base à toute formation professionnelle ou spécialisée qui, sans elle, s'en irait à un désastre. L'histoire et l'observation nous prouvent catégoriquement que, depuis la Renaissance, tous les hommes de grande valeur ont réclamé comme seule préparation adéquate aux études universitaires la formation des jeunes par l'étude des humanités greco-latines, de la littérature, de l'histoire et de la philosophie son couronnement nécessaire. Les peuples pressés qui ont voulu tailler dans ce programme, en abrégant ici ou là, se sont engagés sur la route de la déchéance sous la direction des génies incomplets et sans jugement. Les témoignages contemporains qui analysent ainsi la cause du désastre actuel sont si nombreux en France, en Angleterre, aux Etats-Unis, qu'il faudrait à un homme, consacré exclusivement à cette étude, des mois et des mois avant de les avoir tous recueillis.

Sans doute, les tenants d'un programme visant à la spécialisation prématurée et utilitaire croient en la vertu formatrice de leur enseignement. Il est certain que leurs élèves auront un cerveau mieux organisé que celui du simple manoeuvre, mais il le sera pour lui tout seul et ne saurait jamais être un chef. Car, pour guider les hommes, il faut connaître les hommes eux-mêmes et non leurs outils. Ce n'est ni le calcul intégral, ni les sciences, ni les hautes mathématiques qui font connaître l'homme, comment il est devenu ce qu'il est, quelles erreurs il a commises, comment de siècle en siècle il s'est transformé pour atteindre à une civilisation plus haute ou plus fausse.

Elles forment sans doute l'intelligence et pas du tout le cœur. Elles ne la forment que dans une seule direction et à une seule fonction toujours intimement liée à une formule ou à la matière. Elles agissent comme ces oeillères que l'on met à la bride des chevaux pour les empêcher de voir de côté; celui qui s'est contenté d'une telle formation peut être fort habile commerçant ou technicien, mais il ne sera compétent que dans une seule branche. Il verra bien dans une seule ligne, celle que peut suivre une formule mathématique ou scientifique, mais les à côtés seront pour lui ce que les couleurs sont aux aveugles. Il voudra résoudre tous les problèmes avec un crayon, une règle ou un laboratoire. En a-t-on vu assez de ces borgnes atteindre aux positions de commande de notre société, de notre ville ou de notre pays, pour s'en faire chasser ensuite malgré leur intelligence naturelle? Qu'ont-ils laissé derrière eux? Quelquefois, des traces d'ordre tout à fait matériel, mais désordre, confusion dans l'ordre des valeurs spirituelles, et la cité, divisée elle-même comme à la tour de Babel, ne connaîtra plus de paix. Aussitôt disparus, aussitôt oubliés, à moins d'avoir laissé un souvenir digne d'Erostrate.

Hitler peut être un génie, le monde entier en convient. Mais, qui ne croit pas aussi que, si ce génie avait été cultivé comme doit l'être un chef, l'Allemagne n'eût pu régler ses problèmes sans bouleverser le monde. Un autre fait, plus petit, illustre bien l'insuffisance de cette culture abrégée. Quand on construit le pont de Québec, on décida de faire venir des ingénieurs de France après deux désastres sous la direction d'ingénieurs américains. Il paraît que les sauveteurs ne purent retenir leur sourire et quelques réflexions peu obligeantes en apprenant que nos savants avaient appliqué la formule de leurs manuels. Le Français, paraît-il, leur fit remarquer que les in-

généralistes ne doivent pas être les esclaves des formules, mais leurs maîtres; qu'ils doivent en savoir assez pour les modifier au besoin. C'est ce qu'il prouva séance tenante et le pont fut fini sans accident. Ce petit fait se passe de commentaires.

Est-ce à dire qu'il faille refuser toute instruction à ceux qui ne veulent pas passer par les classiques, ou encore qu'il faille fermer toutes les institutions qui tendent à préparer des jeunes? Ce serait une absurdité. L'instruction est une bénédiction pour un peuple. Tous ne peuvent pas atteindre le même degré de vaste érudition, mais tous ont droit de posséder autant de connaissances qu'ils ont de temps et de talent pour en acquérir. Est-il possible qu'il se trouve des esprits aigris au point d'imaginer qu'il existe des êtres d'une haute culture assez égoïstes pour désirer restreindre l'instruction à un tout petit nombre. Les vrais éducateurs ne donnent-ils pas assez de preuves de désintéressement et d'altruisme pour qu'on ne les accuse pas de vouloir monopoliser l'instruction au profit d'un petit nombre. Jamais une tête bien faite n'a prétendu que l'instruction se répand trop. Il existe des cours élémentaires pour les petits, des cours primaires et même primaires supérieurs pour ceux qui veulent être plus que des manoeuvres et trouver dans l'industrie ou le commerce des positions plus relevées et plus lucratives. Mais il existe aussi l'enseignement secondaire pour ceux qui, n'ayant pas de but déterminé d'avance, veulent par une formation générale se mettre en état d'être des chefs dans le domaine qu'ils choisiront ensuite selon leurs goûts ou leur talent. Et c'est là et là seulement que l'enseignement universitaire doit puiser ses sujets. Autrement, l'Université ne sera plus une école de haut savoir, privée de la cohésion universitaire que procure la formation fondamentale des études secondaires greco-latines, de la littérature, de l'histoire et de la philosophie.

Chaque Faculté se plaindra, comme c'est le cas chez nos voisins, du manque de formation de ses sujets, voudra ajouter des pré-ci ou pré-ça. De sorte que les jeunes, pour avoir voulu gagner du temps en se spécialisant prématurément, devront perdre ce temps à acquérir la formation qu'ils ont négligée.

D'ailleurs, ne soyons pas surpris si certaines maisons d'enseignement primaire supérieur ont vu leurs élèves acceptés avant les classiques dans certaines hautes écoles. C'est qu'à la formation générale elles ont préféré certaines matières spéciales à ces écoles. Or, une enquête aux Hautes-Etudes Commerciales et à Polytechnique a prouvé, avec statistiques, que ces élèves ont le dessus en première année parce qu'ils connaissent déjà les éléments de cet enseignement spécial pendant que les classiques les voient pour la première fois. Mais, dès qu'en seconde année, primaires et classiques se trouvent sur le même pied, c'est-à-dire en face de matières inconnues aux deux, les classiques prouvent la supériorité de leur formation en prenant les devants. Sans doute, il y aura peut-être des classiques aux derniers rangs pendant que des primaires pourront garder la tête. Ce sera toujours des exceptions qui ne doivent pas compter dans la discussion. Des classiques peuvent bien n'avoir pas profité de leur formation fautive de travail ou de talent, comme des primaires peuvent être des bûcheurs quelquefois doués d'une prodigieuse mémoire, mais ce fait n'affecte en rien la thèse que nous établissons sur les résultats de la moyenne. Le parchemin attestant que M. X. est bachelier n'a jamais équivalu, que je sache, à une garantie écrite de son infaillibilité de jugement, de vision ou de caractère. C'est tout simplement un moyen de contrôle exigé par l'Université afin de savoir, avant de l'accepter chez elle, si tel sujet qui se présente possède au moins le minimum de formation qu'elle exige.

La confusion qui existe et qui semble vouloir s'aggraver chez nous a plusieurs causes.

Nombre de professeurs de l'enseignement universitaire n'ont pas été choisis à cause de leur culture générale et de leur haute valeur professionnelle, mais à cause de leurs connaissances poussées sur un sujet particulier. Ces produits d'une spécialisation exclusive et souvent prématurée ont presque tous fini par croire que sans leur spécialité la profession n'existe pas. C'est ce que nos voisins reprochent à leurs facultés de médecine par exemple. Au lieu d'en faire un enseignement basé sur les besoins de la

population et des médecins de pratique générale, qui sont la grande masse en somme, chaque spécialiste veut avoir tout le temps des élèves à sa disposition. Le professeur de chimie, oubliant que ses étudiants sont en majeure partie destinés à la pratique générale, charge son programme, multiplie les examens, les yeux imperturbablement fixés sur celui d'entre eux qui se destine à la recherche. Le professeur de sciences naturelles, celui de la biologie en font autant, si bien qu'avant d'être un bon médecin l'élève a dispersé son temps entre toutes ces spécialités et finit par être ni un chercheur, ni un chimiste, ni un spécialiste et pas même un médecin.

N'avons-nous pas, chez nous, souffert un peu du même mal? N'y aurait-il pas un grand danger de voir nos futurs médecins ou dentistes mettre toute leur confiance dans les diagnostics de laboratoire. Sans doute que ces laboratoires sont indispensables et que leurs analyses sont les compléments souvent nécessaires d'un bon examen. Mais, M. Sergent n'avait-il pas raison de dire que la qualité maîtresse d'un bon médecin c'est le sens clinique, et celle d'un bon spécialiste c'est d'être d'abord un bon médecin. Ce qui se dit ailleurs des facultés de médecine et un peu chez nous, peut se dire de plusieurs autres facultés. Ne serait-ce pas là l'origine de cette clameur insensée: "Nos élèves ne sont pas suffisamment préparés." Le chimiste crie: il faudrait qu'on enseignât plus de chimie dans les collèges. Un autre demande qu'avant d'entrer à l'Université, les jeunes aient fait plus de laboratoire, d'autres plus de sciences naturelles, plus de biologie, enfin qu'on m'excuse de ne pas énumérer toutes les réclamations contradictoires qui pleuvent sur nos maisons d'enseignement secondaire. Si elles allaient céder à toutes ces demandes sans une longue et prudente réflexion, elles auraient tôt fait de supprimer latin, grec, histoire et philosophie afin d'avoir assez de temps pour enseigner chimie, physique, algèbre, anatomie, biologie, physiologie, etc., etc., etc., en un mot, plus d'enseignement secondaire, et tout de suite l'enseignement professionnel. C'est dire qu'à peine sevré, l'enfant devrait choisir sa vocation, quitte à changer de route plus tard s'il s'est mal engagé. Certaines maisons d'éducation, oubliant leur raison d'être et le but de leur fondateur, ont acquis de leur valeur personnelle une opinion si démesurée qu'elles se croient supérieures à toute institution d'enseignement secondaire parce qu'elles ont mis dans leur programme des matières qui les dépassent et devraient rester de l'enseignement universitaire.

Si elles veulent s'élever au degré qu'elles ambitionnent, elles n'ont qu'à abandonner toute matière d'enseignement professionnel et universitaire, à se mettre en état de donner à la jeunesse la formation de base nécessaire à toute profession libérale et à affronter ensuite les mêmes épreuves. Si elles réussissent, leurs élèves seront acceptés aux professions libérales, mais elles ne pourront plus parler d'enseignement commercial ou scientifique.

Pourquoi vouloir opérer des changements aussi radicaux dans nos programmes d'enseignement secondaire quand ils ont donné tant de preuves de leur supériorité. J'admets qu'on y peut faire des modifications de détail intéressantes, mais n'allons pas toucher à la base déjà solidement ancrée dans l'enseignement du latin, du grec, de l'histoire et de la philosophie.

L'axiome "qui trop embrasse mal étreint" aurait-il par hasard perdu quelque chose de sa sagesse? Si l'on veut réformer l'enseignement secondaire, ne serait-il pas sage de demander la suppression plutôt que l'addition de certaines matières peu formatrices, utiles seulement à une ou deux branches de l'enseignement universitaire pour les remplacer par d'autres d'utilité plus générale; ou pour donner plus d'attention à celles qui existent déjà. De la sorte, peut-être y aura-t-il moins de danger de devenir un peuple de simples commerçants ou de techniciens. A ceux qu'impressionne le fait que nombre de classiques, après leurs études universitaires, se rappellent à peine quelques bribes de grec, de latin et même de philosophie, ne pourrait-on pas demander qu'est-ce qu'ils ont conservé du lait de leur enfance ou des tonnes d'aliments qu'ils ont absorbés depuis. Même si l'élève n'a pas été des plus studieux, il en reste toujours quelque chose. Lisez ce que disait tout récemment M. James Mackenzie Fyfe dans la

page éditoriale de la Gazette du 9 décembre: "And it ought to be said that the addresses of the French speaking members were by far the best. For logic, clarity, reason and courage, they much excelled those made by their English speaking fellow members."

Ce n'est pas la première fois que semblable témoignage passe dans les journaux anglais. Le même jour, le *Journal d'Ottawa*, paraît-il, a fait les mêmes réflexions.

Les journalistes auraient peut-être pu ajouter, en guise de conclusion, que Sir Robert Falconer, ancien président de l'Association des Universités Canadiennes, n'avait pas tort de proclamer publiquement que le système d'enseignement des canadiens-français n'est pas inférieur aux autres et qu'il n'était même pas prêt à dire qu'il n'était pas supérieur.

Pour nous convaincre, lisons ce qu'en dit l'annuaire du St. John's College d'Annapolis 1942-43, page 16:

Je résume. "Dans le but d'absorber et d'assimiler les sciences naturelles à la tradition des arts libéraux, Eliot de Harvard introduisit la formule du libre choix des études. C'était une bien petite mesure pour résoudre le plus vaste problème qu'un collègue libéral avait à envisager. Loin d'atteindre son but, il en résultat l'invasion libre et irresponsable de toutes les branches des arts libéraux par le spécialiste de la recherche. Alors, ce système du libre choix des études devint un étalage désordonné de cours spéciaux tous sanctionnés par leur liaison à l'école professionnelle comme "(en anglais) pre-medical, pre-legal, pre-commercial, pre-educational, pre-earning-a-living course." Inutile de dire que les collèges libéraux (chez nous la faculté des arts) oublièrent leur but et devinrent des écoles préparatoires. C'est ainsi qu'on force les jeunes à choisir leur vocation avant le temps pour changer ensuite au risque de gêner toute leur instruction. Ce qu'on ne peut plus trouver, c'est une instruction libérale bien balancée."

Complétons par ce que disait en juin 1944 R. C. Wallace à l'assemblée de l'Association Nationale des Universités Canadiennes.

"Les études scientifiques et techniques donnent la précision, l'exactitude, la souplesse d'adaptation. Bien utilisées elles stimulent l'imagination et suscitent une vive curiosité. Cependant, elles n'offrent pas de réponses aux problèmes humains plus profonds, qui intéressent l'esprit humain. Au reste, nulle discipline en réalité ne donne cette réponse. Mais les études de philosophie et de littérature poussent dans le 'pourquoi du pourquoi' de la vie plus loin que la science ne saurait ambitionner. Or, c'est avec ces questions profondes que nous avons à nous débattre si nous voulons fouler la route d'un pied assuré. Il y a, au sens le meilleur de l'expression, une influence humanisante dans les études littéraires et sociales, car leur fin et leur but, c'est de comprendre l'homme. C'est un fait d'observation que l'élève des études classiques a plus que l'autre, la maturité de l'esprit et la largeur de vues, parce que, du domaine qu'il étudie, rayonne une influence culturelle."

Où encore, ici je résume sa pensée dont chaque terme aurait une importance capitale: "Il faudrait inculquer la discipline complète et saine des humanités aux étudiants. Le programme serait fait de langues, de littérature, de philosophie, d'études sociales, de sciences. Les écoles pourraient remplacer une de leurs années de spécialisation par de la culture générale."

La véritable raison d'être de la Faculté des Arts c'est d'exploiter le champ des humanités, dont l'objet est d'étudier l'homme, le développement de son esprit, ses émotions, sa contribution à l'intelligence du sens de la vie, l'organisation de sa structure sociale et économique, le langage dont il enveloppe ses pensées. Dans leur ensemble, elles aiguisent le discernement et cultivent la largeur de vues."

Et plus loin: "Il est sûr qu'une spécialisation hâtive, qui rétrécit le champ des études, diminue beaucoup les chances de poser les bases solides d'une éducation libérale."

M. H. A. Innis, à la même assemblée. "Lorsqu'on aborde les problèmes de recon-

struction, il faut retracer, pour une longue période, les courants divers en éducation si nos faibles efforts doivent écarter une grande tragédie. L'instruction, en penchant fortement vers la science, hâte la déformation qui a marqué la civilisation occidentale. La disparition presque totale du grec a ruiné le goût de l'humanisme et anémié l'intérêt pour les contributions fondamentales de la culture classique."

"Le déclin des humanités et des sciences sociales a poussé le savoir plus loin dans le chemin de la division et de la spécialisation; on l'a réduit en poudre pour satisfaire l'appétit de l'industrialisme pour les faits et les chiffres, bons tout au plus pour une presse d'imprimerie ou une machine à calculer. L'esprit cultivé a été immolé sur l'autel de la superficialité."

Et le rapport nous dit, dès le début, que toute l'assemblée a fait siennes les propositions de MM. Wallace et Innis.

Ajouterai-je l'opinion du Dr Robert W. Lowie, un des premiers anthropologues des États-Unis.

"Malheureusement, ces dernières dizaines d'années coïncident aussi avec une dégénérescence chez nous de l'éducation générale qu'on aurait peine à croire ailleurs. Pour cette raison, nous avons de nouveaux gradués qui ne connaissent pas le sens des mots ordinaires, et des "Ph.D." dont le style ne serait pas digne d'un élève de High School. Je ne puis m'extasier devant une science que l'on pratique comme un métier."

"L'état lamentable de la culture générale révélé par les examens militaires a effaré l'opinion publique états-unienne; on a enfin commencé d'entrevoir que culture désintéressée ne signifie pas culture inutile, mais culture de base, à laquelle il faut joindre, pour gagner sa vie, une technique professionnelle."

Le Dr Stanley, président de l'Université de Dalhousie, déclarait (la Gazette, 6 sept.) que l'enseignement supérieur n'a cessé de déchoir depuis 1933 parce que le personnel enseignant des Universités Canadiennes a suivi le courant à la mode du préjugé, du matérialisme et du fanatisme.

Il serait bien intéressant d'analyser plus tard les opinions si captivantes de:

M. Henry E. Sigerist, professeur à Johns Hopkins University;

M. Robert Withington, professeur à Smith College;

Sir R. Livingstone: "The future of Education";

M. Theo. Greene: "Liberal Education re-examined";

Dorothy Hall Smith: "The humanities begin to fight";

M. Henry Noble Sherwood: "The value of Historical study";

et surtout le volume d'une érudition incomparable du Père

F. Charmot, s.j.: "La Teste bien faite".

de M. James B. Conant, président de l'Université d'Harvard;

M. Robert M. Hutchins, président de l'Université de Chicago;

et de beaucoup d'autres encore.

Concluons en deux mots.

Si les autorités militaires, avant de mettre entre les mains des recrues les armes dont ils se serviront à la guerre, commencent par leur faire subir un long entraînement, imitons-les donc. Avant de chercher à remplir prématurément les jeunes têtes de connaissances spéciales à telle ou telle profession, ne serait-il pas logique de commencer par leur faire subir l'entraînement nécessaire à l'absorption de ces connaissances.

Dr ALCIDE THIBAUDEAU.

Bref Exposé des Activités de la Commission d'Hygiène Dentaire du Collège des Chirurgiens-Dentistes de la Province de Québec

J'ai le plaisir, dans l'espoir d'intéresser nos confrères d'Ontario, d'exposer ci-dessous très brièvement le travail accompli jusqu'ici par la Commission d'Hygiène Dentaire du Collège des Chirurgiens-Dentistes de la province de Québec, les buts qu'elle vise et ce qu'elle est en voie de réaliser pour les atteindre:

Il y a plusieurs années que la Commission d'Hygiène Dentaire du Collège a été formée. Elle a commencé par étudier d'une façon aussi complète que possible les questions d'hygiène publique dans le domaine dentaire, par voir ce qui s'était fait à ce sujet aux États-Unis et dans certaines parties du Canada, spécialement dans la province d'Ontario, par acquérir une documentation et des statistiques aussi nombreuses qu'elle le put, et ce n'est vraiment qu'en octobre 1942 qu'elle commença réellement ses activités proprement dites.

Les années qu'elle avait consacrées à l'étude des problèmes qu'elle devait traiter et de l'enseignement qu'elle entendait donner avaient été fructueuses et l'expérience théorique ainsi acquise par elle lui permit d'aborder avec assurance et de réaliser avec succès la partie active de son programme.

La Commission d'Hygiène Dentaire voulut d'abord, par le plus de publicité possible, par des manifestations visuelles, frapper l'imagination publique, éveiller son attention et faire comprendre à notre population l'impérieuse nécessité de l'hygiène dentaire. C'est dans ce dessein qu'elle organisa, en novembre dernier, dans plusieurs vitrines de grands magasins à Montréal des expositions d'équipements dentaires civils et militaires, c'est pourquoi encore, également dès la mi-novembre 1942, elle lançait à la radio une très vive campagne d'éducation et de propagande en faveur de l'hygiène dentaire.

Depuis lors, plus de 80 causeries radiophoniques furent ainsi données, en anglais et en français, au bénéfice de la province toute entière.

D'autres manifestations se déroulèrent à Montréal au cours de l'hiver 42 et du printemps 43, la Commission participant à différentes réunions sociales avec l'aide, par exemple, de la Chambre de Commerce et du Club Kiwanis St-Laurent. En réalité elle ne négligea rien pour attirer sur elle et sur les buts qu'elle poursuivait la meilleure attention, à la fois de nos dirigeants religieux, civils et militaires et de notre peuple en général.

C'est aussi dans cette intention que, dès le mois de novembre 1942, elle avait fait préparer, imprimer et avait commencé à distribuer un petit dépliant consacré à l'hygiène de la bouche, dont trois cent mille exemplaires furent utilisés par elle au cours de l'hiver et du printemps 1942 et depuis lors.

Parallèlement et avec le concours du service de Santé de la Cité de Montréal, elle entreprenait une campagne dans les écoles des Commissions Scolaires de notre ville, au moyen de grandes séances qui réunissaient toute la population écolière et le corps enseignant de chacune d'elles. Ces séances clôturaient l'inspection des bouches de tous les enfants de chacune de ces écoles par les dentistes inspecteurs du service de santé municipal. Notre Commission a ainsi, du 27 janvier jusqu'à maintenant,

visité, avec les représentants du service de santé de la ville, 88 écoles qui groupaient plus de 80,000 enfants, fillettes et garçonnetts, jeunes filles et jeunes gens. A chacune de ces réunions, un chirurgien-dentiste de notre ville, collaborateur bénévole de la commission, voulut bien prononcer une causerie sur l'hygiène dentaire à l'usage des enfants.

Dès le mois de mai 1942, la Commission étendait ses activités en dehors de Montréal et fondait des comités à Québec, puis à St-Hyacinthe, à Trois-Rivières, à St-Jérôme, à Valleyfield, est en voie d'en former d'autres encore à Sherbrooke, à Hull et dans différentes villes de la province de Québec.

Des campagnes extrêmement élaborées se déroulaient ainsi, dans la vieille capitale tout d'abord où la cause de l'hygiène dentaire fut magnifiquement défendue et servie. Le comité de Québec tint plusieurs réunions publiques, fit entendre à la radio de nombreux conférenciers et obtint même du Premier Ministre de la Province, du Ministre de la Santé et de son Sous-Ministre, du Maire de Québec et de nombreuses autres personnalités qu'ils interviennent eux-mêmes à la radio ou en public.

Depuis lors, de nombreuses villes du Québec virent se dérouler avec succès de très fructueuses campagnes d'une semaine et d'autres analogues sont à la veille d'être tenues ailleurs encore.

La Commission d'Hygiène Dentaire publie aussi, chaque semaine, sans aucune interruption, depuis novembre 1942, dans 117 journaux, quotidiens et hebdomadaires, de langue française et anglaise, répartis dans toute la province de Québec, de courts articles de propagande et d'éducation sous le titre général de "*LA SANTE DES DENTS*". La Commission entend bien continuer la publication de ces articles qui ont donné d'excellents résultats, provoquant des centaines de lettres de la part du public lecteur, demandes de conseils et de renseignements auxquelles il est toujours très vite répondu.

Notre Commission d'Hygiène Dentaire, qui a maints autres projets en voie de préparation, a décidé d'organiser, dans la Province de Québec entière, avec la coopération effective de la Fédération Provinciale des Chambres de Commerce, de nombreuses manifestations publiques en faveur de l'hygiène dentaire. Ces grandes assemblées se dérouleront dès cet automne, dans de nombreuses villes, sous le patronage de la Chambre de Commerce Locale. Au cours de chacune d'elles, un de nos confrères de la ville intéressée prononcera une causerie sur l'hygiène dentaire et l'importance des soins à donner aux dents. Le texte de cette conférence, spécialement préparée à cet effet, lui sera envoyé par nous.

En un mot, là, comme dans tout ce qu'elle a entrepris ou veut entreprendre, notre Commission, par tous les moyens à sa disposition, vise surtout à alerter aussi rapidement et complètement que possible l'opinion publique et à lui faire bien comprendre la nécessité de l'hygiène dentaire et l'importance primordiale de dents saines et bonnes.

Parmi les projets mis au point par la Commission, je désire en souligner quelques-uns qui seront bientôt en cours de réalisation. L'un d'eux consiste en une série de courtes causeries sur la nécessité de l'hygiène dentaire pour eux et pour leurs enfants, devant être prononcées, à partir de cet automne, par un certain nombre de nos confrères, devant les ouvriers et les ouvrières de nombreuses usines de Montréal et des environs, d'abord, puis ensuite de la province entière.—tâche qui sera accomplie avec l'aide des Assistantes Sociales ou des Infirmières attachées à ces divers établissements.

Notre petite brochure intitulée "*LA SANTE DES DENTS*" sera abondamment distribuée dans toutes ces usines.

Par ailleurs, nous avons entrepris, dans deux domaines différents, une oeuvre purement educationnelle. Nous avons d'abord préparé un très bref et très simple "*MEMENTO DENTAIRE*" à l'usage des professeurs, religieux et laïques, de la

Commission des Ecoles de Montréal, qui comprend le thème facile d'une trentaine d'entretiens dentaires à la portée de la population écolière de Montréal.

Parallèlement, nous préparons un Manuel Dentaire destiné aux écoles des gardes-malades dans les hôpitaux de langue française de la province de Québec. Nous comptons assumer nous-mêmes, dans chaque hôpital, cet enseignement général et simplifié de l'hygiène dentaire et des soins à donner aux dents, un exemplaire de notre Manuel devant être remis à chaque étudiante garde-malade.

Finalement, nous avons l'intention de procéder, en collaboration avec les autorités scolaires de notre Métropole, à l'examen des bouches de tous les enfants, deux fois par an, dans les écoles publiques de notre grande ville de Montréal. Cela représente un travail si considérable que nous ne commencerons inévitablement que par la visite de quelques-unes d'entr'elles seulement,—bien que notre but soit d'arriver à examiner les bouches de toute la population écolière, dans toutes les écoles de la ville, deux fois par an.

Cet examen aura lieu en même temps que la pesée des enfants à laquelle il est procédé bi-annuellement par un médecin du Service de Santé Municipal—et sera le fait d'un groupe de dévoués confrères, bénévoles et volontaires, qui sera définitivement constitué dans le très proche avenir.

A ce propos, nous avons établi certaines fiches, formules, questionnaires,—qui, une fois remplis, ne manqueront pas d'intérêt du point de vue documentaire et statistique.

Avant de terminer cet exposé, je ne veux pas passer sous silence, parmi nos activités, le cours spécial de 3 jours de dentisterie pour enfants, organisé par notre Commission aux Universités McGill et de Montréal, avec le si précieux et dévoué concours du Docteur HARRY THOMSON, du "Canadian Dental Hygiene Council", de Toronto. Pour élaborer, préparer et réaliser tout ce qui a été fait au cours des 2 dernières années, tout ce qui se fait présentement ou est en voie de se faire dans l'avenir, pour tout son travail de correspondance, de rédaction, de traduction, de documentation et de recherches, pour la préparation de ses causeries radiophoniques, pour celle de ses articles hebdomadaires et leur distribution; pour l'organisation de ses diverses manifestations, la mise au point et la réalisation de ses activités, pour tout ce qui a trait aux réunions mensuelles de son Comité Exécutif ou à sa réunion plénière annuelle, ainsi que pour la rédaction de ses ordres du jour et de ses minutes—la Commission d'Hygiène Dentaire du Collège des Chirurgiens-Dentistes de la province de Québec dispose d'un secrétariat permanent depuis octobre 1942, qui se compose d'un publiciste, chef de secrétariat, et d'une secrétaire. Notre publiciste se tient en contact constant avec moi et travaille sous mon contrôle et selon mes directions.

Le publiciste et sa secrétaire sont les seuls à la Commission à être très modestement rétribués—tous les autres concours qui lui sont si largement prodigués par les membres de la Profession étant, sans aucune exception, volontaires, bénévoles et absolument gratuits. Qu'il me soit permis, en terminant, d'assurer nos confrères de l'Ontario que leur exemple et le splendide travail accompli par eux pour le plus grand bien de l'hygiène dentaire, de la santé publique, du progrès de la science dentaire en même temps que pour le meilleur avantage de notre Profession, m'ont toujours grandement aidé et continuent à m'inspirer sans cesse dans les directives que je dois donner à notre Commission.

MONTREAL, le 23 août 1944.

Docteur GABRIEL LORD,

Président de la Commission d'hygiène dentaire du Collège des chirurgiens-dentistes de la province de Québec.

Commission d'Hygiène Dentaire du Collège des Chirurgiens-Dentistes de la Province de Québec

Président d'Honneur: L'honorable Ministre de la Santé et du Bien-être Social de la Province de Québec.

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(Toute correspondance et communication doivent être adressées à: Commission d'Hygiène Dentaire du Collège des Chirurgiens-Dentistes de la Province de Québec, Aux soins du Docteur Gabriel Lord, Président, 1426 rue Amherst, MONTREAL. Téléphone: Marquette—4816.)



*Photo by Wallace Kirkland, Jr.
Courtesy of "The Beaver".*

SHOOTING RAPIDS ON THE WAY TO YORK FACTORY



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A Statement of Some Principles and Practice Prepared for the Attention of the Minister of Education with the hope of Encouraging a Reconsideration of the Status and Organization of Dental Education in China

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IT IS my belief that the time has come when the Ministry of Education should formulate a dental educational policy which will attempt to meet adequately the conditions and demands of China's future dental health service and its practitioners. Such a policy should take into consideration the interests of both the dental profession and the people.

Where your Ministry has not the power to change an old, or to establish a new policy, could you not present to the proper authorities for consideration and action a plea for a change of the old for the new? China has as yet no organized body of dental educators or administrators who can approach the Government.

Before attempting to prepare a

sound and workable dental educational philosophy, a first step, the proper status of the profession of dentistry, must be agreed upon. Is dentistry in China to be developed as a craft or as a profession? Doubtless, to many, dentistry's social status is quite clear and unquestionable, but in the minds of too large and too important a group there is evidence of the indecision of prejudice or misunderstanding. Too frequently dentists are not consulted when broad principles and policies relating to health are considered; too much emphasis is placed on the dentist's peculiar vocational contribution and too little on his cultural and professional qualifications. There are, of course, traditional reasons for these attitudes; but,

in the light of the responsibility and standing which must be assumed by the dentists of China, should they remain valid today? What leadership and administrative direction can be expected from a subservient dental group? An educational policy can be satisfactorily evolved only when a decision has been made as to whether dentistry is to develop as a craft or as a profession.

If it is to be developed as a *craft*, then dental education should be patterned on that befitting the trades. That is, a technical dental vocational school system should be planned, and a curriculum prepared in which the emphasis should be put largely upon the teaching of the dental prosthetic techniques and skills. Dental teachers should be trained for and confined to teaching in such schools. No time should be wasted by students in acquiring more than a very limited background of general culture, of biologic sciences or of medical knowledge. Stress being placed on the development of technical skills, therefore the younger the student body the better.

If dentistry is to be developed as a *profession* then it must be ranked with the professions and its educational system must be made an integral part of university education. The curriculum should include requirements calculated to produce a socially cultured, medically conscious and dentally adequate professional body.

The hope that China can develop, for whatever temporarily good reason, a dental profession and a dental craft operating with like privileges and responsibilities, as is now the practice, can only lead to future disappointment and unsatisfactory result for dental practice and for society.

During the past decade your Ministry has periodically considered how best to educate a dental personnel which shall prevent and care for the dental diseases and suffering so prevalent amongst the people of China. The war has undoubtedly prevented

the normal course of dental educational development, begun so favourably in 1937 with the organization of a National Committee on Dental Education.

During these war years your Ministry has supported the requests of individual dental educators and of administrators in charge of dental departments. You have no doubt also been consulted in the organization of military dental technical schools. Money has been granted towards dental education. Diplomas have been distributed to successful dental graduates of colleges and schools. Licences have been granted by the National Health Administration to dental practitioners. Other evidences of a like nature all attest the fact that during these years dental education and practice have had some thought and consideration.

Nevertheless and notwithstanding all evidences which prove that dental education and practice are being developed in China, Generalissimo Chiang, always interested in dentistry, in his book "The Destiny of China" did not mention "dentistry" in his survey of the health needs for the next ten years. Dentists and dentistry were not referred to except as they were included under the general term "health."

The Generalissimo was quite specific in regard to the need of physicians, pharmacists and nurses! Did he fail to mention dentists in his survey because he regarded dentistry as a specialty of medical practice? If he did it is quite certain that the medical profession does not so interpret him. The discussion at the May 1943 Medical Association Meeting, where the Generalissimo's challenge was considered, did not take into its purview any educational program to increase the number of dentists.

My own opinion is that dentists *were* included within the health personnel, but my judgment is that the profession of medicine will not so include them in any educational plans it may

devise. I also believe that *conventional medicine* will be correct in excluding dentists from its considerations. My reason for this belief is that I do not consider dentistry to be a specialty of medical practice, but rather, a divisional unit of the health services. The term "medicine" is all inclusive for these services, embracing all the divisions and branches of the healing arts:—scientific medical practice, empirical medical practice, surgical practice, dental practice, pharmacy practice, nursing practice and such other practices as may in the future gain admittance to the field of health service.

To include dentistry within the general terms "medicine" or "health service," without specific mention, will always lead to its exclusion when considering medical education, just as pharmacy and nursing are now excluded.

Because of the rapidly increasing accumulation of new facts, and with their correlation and collection into bodies of knowledge, new sciences were progressively born or developed during the last century. Parent professions were subdivided and sister professions born. It was thus that dentistry became organized as a divisional unit of medicine. In most countries, it is now recognized, not as a specialty of medicine, but as a professional practice unit of the health services.

The justification for the existence of dental practice apart from its sister medical practice rests in the peculiar nature of the biological structures of its special field, also, in the unusual therapeutic management required for the maintenance and the restoration of mouth structures and functions. Dental structural defects, disorders and diseases are so widespread and so time-consuming in their treatment as also to demand a larger personnel than that required for any specialty of medical practice.

Dental prosthetic therapeutics which

are so important to the practice of dentistry, are based upon the physical sciences and the principles of engineering. The laws of stress and strain, of leverage and torque, are fundamental to the mechanics of the technical procedures of prosthetic dentistry, but basic to the application of these laws is the fact that oral mechanical therapies are applied to living structures and tissues; and, further, that the dentist's primary concern cannot be with the construction of restorative appliances for lost and damaged tooth tissues, but rather with the why and wherefore of oral disease, their physiological and pathological consequences and their prevention.

It will be useful to our purpose briefly to define and describe the field and study of dentistry as it is known today. Dentistry, a divisional unit of medicine, is the science and the practice of medicine and surgery applied to oral structures and their functions. Further, the mouth, located at the upper end of the alimentary canal, is the organ which initiates the important processes of digestion. The teeth, parts of the oral organ, with their surrounding and supporting structures have inherent connections with the digestive, the nervous, the circulatory and the respiratory systems as well as with the bones, the joints and the muscles of the body. Infections in or about the teeth bring to many people through these connections economic disaster and crippling invalidism.

It should be evident that dental education which teaches of mouth structures and functions, of its diseases and its therapies, both local and systemic, should be thoroughly comprehensive. It must include fundamental medical knowledge as well as much of the physical, the mechanical and the aesthetic sciences. The study of the anatomy, biochemistry, physiology, bacteriology and pathology of most of the oral tissues differs in no respect from that of the tissues of other parts of the body. It is the tooth tissue

alone which differs; this not being self-repairing as are other biotic tissues, calls for the teaching of dentistry as a special medical science and therapy.

Education relating to the teeth and their surrounding and supporting tissues demands an understanding of the medical, biological and physical sciences and arts. Dentistry practises oral surgery when its skill is applied to the removal of teeth, cysts, tumours, granulomata, when it drains abscesses and undertakes the many other operations necessary to eradicate infection and diseased tissues by the use of manually applied therapies. Dentistry practises a special therapy not common to either conventional medicine or surgery when it practises its prosthetic therapies. The knowledge and skill required for this latter practice is not taught in medical schools. This practice makes use of processes and techniques such as are required in no other class of surgical operation. It also demands more individual attention and special experience than can be given by the physician or medical surgeon to the care of any one part of the body.

There is great danger of assuming that the need for the development of dentistry in China will arise when the country recognizes the widespread extent of oral disease and disorders. From a humanitarian and social point of view this may be a good reason, but, from a more thoughtful consideration it is not one which the government of China should admit. Oral disease and disorders have existed in China for ages but until now China has not been able to develop the means for countering or overcoming them. The true reason for the development of dentistry should be the need for contributing to the science of dentistry. World-wide dentistry expects men and women of China to join the ranks of its science. It is in order to create and utilize a body of dental knowledge that it is necessary for

China to develop and organize a profession of dentistry.

To make use of all the dental knowledge now known to the world of science dental educationalists and practitioners must be trained. Only broadly trained Chinese dental scientists can interpret principles and theories aright. Further, dental students must be given the opportunity to acquire such dental truths and skills as will enable them on graduation, to practise modern dentistry, to develop the capacity for continued growth and to attain a capability for making the adjustments necessary to fit into their profession new knowledge, new conditions and new responsibilities. This implies that dental education in China must equal the best of other countries. To indicate what this 'best' is I quote the requirements of the Council of Dental Education of the American Dental Association:

"Whatever the historical background and corporate entity of a dental school and whatever the source of its support, its functioning educationally as an integral part of an accredited university will be regarded as of fundamental importance. The Council will not be satisfied with the nominal or casual affiliation of a dental school with a university but will expect its administration, its teaching, and its research to be conducted as a university discipline, in harmony with the purposes and methods of higher education. This view contemplates the recognition and acceptance of a dental school by the university of which it is a part on equal terms with the university's other professional schools, and anticipates the dental standards of scholarship, the exactness and thoroughness of scientific endeavour and the true university spirit of its parent institution."

"All instructions should recognize the now indisputable and challenging fact that the content and the procedures of dental education should pre-

suppose that adequate dental service must serve biologic ends. It is therefore essential that students acquire understanding and appreciation of oral and systemic relations in both health and disease; of the biologic significance of restorative and replacement procedures; and of the interdependence of the dentist and the physician in meeting health needs. This conception does not minimize the importance of the technical phase of dentistry, but it does recognize oral disease and disorders as major health problems and makes imperative the thorough training of the student in biologic fields."

"The need for thorough research into the causes of oral disease and into the problem of the promotion of oral health is universal and compelling. Therefore, every dental school, whatever its stated objectives, should be animated by the spirit of inquiry. The mere prosecution of routine class and laboratory assignments is purposeless without genuine scientific approach; no dental school fulfils its mission unless the spirit of research permeates the activities of both teachers and students and unless its graduates go out into dental practice inspired and prepared to explore the unknown fields that beckon them in their chosen field."

Also, I quote from the Curriculum Survey Committee of the American Association of Dental Schools, 1935, which presents its objectives for a dental school curriculum. "The curriculum must aim to train students in order that they: (a) be competent in the maintenance of oral health and the treatment of oral disease, disorders and deficiencies, with understanding and appreciation of the relationships between oral and systemic conditions in health and disease, (b) cooperate effectively with persons engaged in allied fields of service."

Dentistry, like general surgery, before the 19th century was considered a craft: but unlike surgery, dentistry

did not become a part of medical practice during the period when the growth of the fundamental sciences of pathology, bacteriology, biochemistry and pharmacology revolutionized the theories of the aetiology of disease and of its therapies.

Dental education, unlike general surgical education, for long years continued to stress the apprenticeship or vocational systems of education, largely emphasizing the acquisition of skill in dental prosthetic therapies. The above quotations from American dental authorities clearly indicate that this day has past. China should not—must not—copy outworn dental practices and systems now being demonstrated in such countries as Japan and India.

During the past thirty years world-dentistry has followed conventional surgery into the universities so that today the major emphasis of dental education is on the biological approach—the study of dentistry as a problem in human biology. Dental educational authorities both in Europe and America have been convinced of the necessity for this changed emphasis, but the procedure and the means for attaining their ends have varied in different countries. In some European areas both systems have remained in operation, so that in Germany they are training the physician-dentist and the technician-dentist. German dentistry is no longer considered progressive in either science or practice. In the United States of America and in Canada the length of the educational period has gradually been increased to six years to enable the cultural and the biological content of the curriculum to be extended and enriched.

Another suggestion has been made by certain members of the medical and dental professions that the medical and surgical therapeutics of dentistry should be practised by physicians or medical surgeons, delegating the practice of the oral prosthetic

therapeutics to dentists under medical supervision. The reasoning back of this plan is the erroneous one which assumes that without oral prosthetic therapeutic training medical men can supervise the practice of dental craftsmen in the restoration or the replacement of dental structures and functions. This assumption is fostered by the belief that the dentist like the nurse and pharmacist, should serve under medical supervision or orders. The answer to this reasoning is that medical surgeons and physicians, untrained in oral prosthetics cannot prescribe for or evaluate the mechanical functional or biological usefulness of the service of any dental personnel whose practice begins and ends in mechanical techniques only. To evaluate correctly dental restorations and replacement therapies there must be a professionally trained dental scientist and practitioner. His education begun in the physical, biological and medical sciences will end in the correct practice of prosthetic techniques, but never the other way round.

It seems to me that the plan adopted by your Ministry, which apparently is the preparing of two grades of dental practitioner with equal responsibilities and privileges, should be examined in the light of these statements. Is it possible to produce through three or four years' training in a vocational school a dental practitioner capable of creating or utilizing physical, biological, medical and dental knowledge in order to diagnose, prevent or treat oral disease and disorders in all their local and systemic involvements? I strongly affirm that the answer must be *no*. All that can be expected of vocational school training is the production of men skilled in a craft, men who can and should work only under learned direction.

The smattering of biological knowledge and medical facts which is now given in the dental technical schools no more fits the graduate to practise a dental health service than is the

medical nurse fitted to practise medicine. Without doubt the nurse is valuable and indispensable to medical practice. Without her the physician and surgeon could not care for more than a small proportion of the patients now served, nor could they give as efficient service. Trained dental technicians operating under the control and supervision of a biologically and prosthetically educated dentist could be of inestimable value to the efficient practice of dentistry and to the safety of the patient. Like the nurse serving in medical or surgical practice, the dental technician could carry out the prescriptions and orders of the dentist in the preparation and insertion of dental prosthetic restorations and replacements. Thus many more patients could be cared for with efficiency and skill.

The supervised dental technician has a place and is to be desired, but not the hybrid type being produced. This man is dangerous to society in that he operates without all-important critical knowledge. His prosthetic restorations have the appearance of genuine restorations, both to the patient and to himself. He does not know that his restorations are not meeting biologic requirements. He is proud of his accomplishments and he does not realize that he is reproducing the mistakes of a past age in dental practice. He is making a living while innocently sending many of his patients to an early grave by seriously reducing their resistance to disease and disorders.

No engineering company would give into the charge of its drafting staff the responsibility for designing or supervising the erection of a complicated bridge. The technical staff is useful and necessary but is not held responsible for the satisfactory designing, erection or functioning of the bridge. Dental technicians whose training only includes a minimum of the background of the biological and medical sciences should not be permitted to design oral bridges, to diagnose oral disease

or to plan therapies. Society must be protected from the attentions of all so-called dental personnel who operate on the living oral structures as if they were inert, nonvital tissues, altogether lacking in physiological relationships or pathological consequences.

The public, not well enough instructed in the physiological or pathological consequences of an oral defect or pain, does not know whether to call on a dentist or a dental technician for cure or relief. But, as the technician can afford economically to provide the cheaper service he will, in most cases, be the one chosen to be the attendant. The government, acting for the people, should provide adequate safeguards in every health service available to the public. Any physician, surgeon, medical or dental or other licensed health worker, ignorant or lacking a comprehensive knowledge of the nature of the living structures upon which he applies his technical therapies, is a menace to society even though he possesses and exhibits unusual technical skill.

For the reasons I have given, and others which could be added, surely it would be well for the government to reconsider its *present plan* which provides for the preparation of dental practitioners in vocational schools.

Some years ago I suggested a plan of dental practice which could make use of dental technicians to the great advantage both of a dental health service and of the public. This plan foresees a system of health care which I have called "group dental practice," in which there are employed dentists, dental technicians, dental nurses, dental attendants and business staff.

In this organization the dentist is responsible for diagnosis and treatment-planning, for the designing of prosthetic restorations and replacements, for surgical and medical therapeutic treatments and for the supervision and control of the oral prosthetic therapeutic measures of the dental technician. The technician is

responsible for the carrying out of the design and prescription of the dentist in all therapeutic measures, whether at the operating chair or in the prosthetic laboratory. The dental nurse or attendant assists the dentist and the technician in all the many details of nursing and attending service. Such a dental personnel operating a dental hospital or clinic would require a staff in the ratio of one dentist to five-to-ten technicians. Large clinics of five dentists and twenty-five technicians with an assistant staff could serve a moderate sized city efficiently, indeed very much more efficiently than any type of competitive practice. A group-practice would not only be economical in operation but the educational training of the personnel would be much more economical of time and money.

In this "group practice" plan the dentist's education *must be* of university grade but the technician need not be a senior middle school graduate. Rather, he should have completed junior middle school followed by a three years' vocational and cultural mixed course. To this should be added two years of dental prosthetic, technical laboratory and clinical training. Such an education, beginning early, would produce technicians with good manual control and skill, with sufficient academic knowledge to be capable of co-operating with the dentist intelligently. Dental nurses and attendants would require similar training to that which is now being given to such persons employed in medical practice.

Many details of the general organization of the group practice plan have also been worked out, but this statement is sufficient to indicate the great possibilities of using a dental personnel with varying grades and divided responsibilities. Each member of this group would be trained to carry a definite and suitable responsibility in the coming National Dental Health Service.

I do not pretend to believe that the plan meets with the approval of every-

one. Obviously it does not consider the private dental practitioner in competitive practice nor will it be agreed to by those who fear bureaucratic control, but I am certain that it meets China's great need for a large and prompt increase in efficient and safe dental practice.

With a minimum number of dental colleges and dental technical schools a larger dental personnel could be better prepared than by any other means. The present dental graduates, assisted by technicians could multiply many times their clinical output if placed in control of group-practice clinics.

The securing of younger students for dental technical schools would be made comparatively easy so that such schools could have large classes, making it possible to produce college graduates and technicians at a rate of at least five technicians to one dentist.

Sufficient has been said to indicate that, from the standpoint of both den-

tistry and society, there is need for a policy of dental education and practice which is more realistic and efficient and better able to create for China a dental health service, worthy and capable of meeting all its demands. Also, that in order to provide a large dental personnel adaptable to economic and other needs it is not necessary to lower the dignity of dentistry's professional status.

If the principles outlined in this statement are accepted a ten-year plan for the preparation of dental personnel can be presented which will show that more personnel can be prepared in shorter time than by any other suggested dental-practice set-up.

I earnestly hope that my statements and interpretations, suggestions and proposals, may stimulate a reconsideration of the problem of dental education and practice, looking forward to a period of rapid rebuilding and advancement in all health services at the conclusion of the world war.

Canadian Aid to Russia Fund

The Canadian Aid to Russia Fund is anxious to ship as much as possible, warm clothing for the orphans and homeless in the devastated areas of Russia. Mrs. Churchill's Aid-to-Russia Fund in Britain, the American Russian Relief Agency and other Allied nations are continuously active. We wish to build a worthy Canadian record in this effort.

Our gifts will help to reduce the sufferings of the heroic Russian people and also lay the foundations of friendship and strong alliance with Russia—important for our own and the world's future peace.

Dentists of Canada are urged to participate as enthusiastically as possible. Gifts addressed to the Fund may be shipped by rail to warehouses in Vancouver, Edmonton, Winnipeg, Montreal and Toronto.

For further information write to the Clothing Division, Canadian Aid to Russia Fund, 14 Bloor St. W., Toronto.

"If you have to earn your living, earn it with your left hand, and keep your right hand for your proper business in life. If you become immersed in the tasks of acquiring wealth, some day you will meet a man who is indifferent to worldly gain, and if you enter the contest with him you will discover that his little finger is thicker than your loins."—Rudyard Kipling.

Case Histories

by J. STANLEY BAGNALL, D.D.S., Halifax, Nova Scotia

GANGRENOUS STOMATITIS

GANGRENOUS *Stomatitis*, "Noma", "*Cancrum Oris*" are various names which have been given to a serious type of oral condition. There are some reports in the literature of cures by such methods as the complete removal of the necrotic area by diathermy and more recently claims have been made for successful treatment by formalin. In our experience, while a wide range of treatments has been tried, the prognosis has been uniformly bad.

Clinical signs are clear cut and definite so that there is no difficulty in recognizing the condition reasonably early. The early signs closely resemble a typical Vincent's patch, which is easily understood since on examination it will be found that the Vincent's organism is present in great numbers. This is so marked that the condition has at times been considered as a serious Vincent's (Ulceromembranous gingivitis) in which the patient's resistance has been overcome and goes on to death. There is at this time a rather typical patch on the lingual surface of the lower lip, about opposite the roots of the lower anteriors, or some other area such as the inner surface of the cheeks, where a typical Vincent's ulcer might be expected. The characteristic odour, ropy saliva and other signs common to Vincent's are present. The main difference is that the patch and amount of dark necrosed tissue on the surface of the ulcer is more marked than usual. If untreated, this early appearance is rapidly followed by redness of the cheek or lip about opposite the centre of the ulcer. This is rapidly followed by increasing darkness of the external red area, then rapidly

spreading necrosis and gangrene of the cheek or lip, followed by death usually in three to five days. These various stages follow one another so quickly that it is not surprising that there has been very little possibility of studying the condition, and the literature on this serious condition is extremely sketchy. One or two writers comment on an associated blood condition, but so far as I know the changing blood picture has never received the attention which it has in this case. I am indebted therefore to Mr. Gordon Hennigar (son of the late Gordon Ross Hennigar D.D.S.) who, as the intern on the case, noted the early importance of the mouth lesions and also to the Provincial Pathological Laboratory for their numerous blood examinations.

A rapid review of some early cases is interesting, since they provided the clue which was followed in this case. The first case which I saw was admitted some twenty years ago and as was quite usual at the time died within several days. He was comatose at the time of his admission to the hospital from a ship and it was not possible to get any early history. The next case was a young girl in her late teens. She had been in hospital for some weeks before I saw her and had been under treatment for a persistent Vincent's infection of the throat. When I first saw her there was a typical ulcerated patch on the inner surface of the lower lip. Progress of the ulcer was slowed by appropriate Vincent's treatment, but after several days she was taken home at the insistence of her family and died several days later. The next case was a girl of about 10 who was admitted showing evidence of serious

malnutrition. She was treated all summer by the Medical service of the hospital, but without showing improvement. She developed a number of patches of Vincent's, which would respond to treatment only to break out again a few weeks later in a new location. Early in the fall a more stubborn lesion developed on the inner surface of the left cheek and in spite of treatment grew worse and death followed in a few days. It was then, as a result of these cases, that we were rather impressed with the possible importance of the Vincent's organism in the picture. The next case was a boy of 16 or 17. He was admitted with the typical ulcer on the inner surface of the lower lip and showing evidence of rather marked malnutrition. We were able in this case to stop the spread of the gangrenous patch by burning out the area with a diathermy needle. Swabs were negative for Vincent's after this treatment and continued to remain negative. We were hopeful until we noted that there was no attempt at regeneration of new tissue in the area. We suspected a blood dyscrasia and were for some time doubtful if the condition might not be Agranulocytosis, which was receiving considerable attention in the literature at that time. Blood examination ruled out Agranulocytosis and the patient died some three weeks later, but without any recurrence of the gangrenous area in the lip. The one lesson learned was that even routine blood counts showed the possibility of a link up of the mouth condition with a blood dyscrasia. We have been waiting then for the past four years or so for another case to be admitted in order to get full information on the blood, in addition to the methods of treatment which would be tried. This has been done and the mouth condition has been checked stage by stage with the blood picture from admission to shortly before death.

Patient was a married woman, 28

years old, admitted to hospital on Oct. 3. The mouth picture at that time, as taken by the intern was: Marked Vincent's, mouth very painful, lower lip swollen. Upper anterior gums heaped up. Greyish-white membrane on lower gums. The general condition on admission was diagnosed as anaemia, which is borne out by the blood count given below. I first saw her on Oct. 6, and in the interval she had received mouth washes of hydrogen dioxide. The lip condition when I saw her was a well marked necrotic ulcer on inner surface of lower lip, just above the muco-buccal fold and measuring about half an inch by an inch. Surface of ulcer covered with dark necrotic tissue, which could be partly lifted from surface of ulcer, but was adherent to tissues at upper edge of ulcer. Space between lower lip and teeth was filled with a stringy, fibrinous blood clot. Upper gums were markedly enlarged, rather than inflamed. General condition of teeth and gums was fair, with some cavities and localised gingivitis. I diagnosed the condition as some type of gangrenous stomatitis, but made no change from the treatment as the patient seemed to be responding. Blood counts at this time gave the following results:

Date	Haemoglobin	Reds	Whites
Oct. 3,	38%	1,200,000	1,000
Oct. 9 (after 2 transfusions)	40%	1,600,000	3,600

The medical staff were concerned over the infection in her mouth, particularly as she was running several degrees of temp., and on one occasion it reached 104. It was decided not to use the sulpha drugs as she had an attack of pneumonia a short time before admission and had been given large doses of sulpha. There was at this time the thought that her condition might be due to the use of these drugs. Instead she was placed on penicillin on Oct. 12, which was as early as the drug could be obtained. This was interesting since this is perhaps one of the early cases where this drug has been tried for a gangrenous mouth condition. Her response was

at first remarkable. Temperature which had reached as high as 104 and which showed wide daily swings dropped by the 14th and from then until Nov. 5 held within about one degree above or below normal. Penicillin discontinued Nov. 9. On Nov. 5 it started to climb again and remained from around 102 to 105 until death on Nov. 21. The lip condition at first gave a splendid response. The dead tissue sloughed off and the characteristic odour disappeared. The surface remained clean for several days and the raw surface started closing over nicely. Towards the end of the month it was not doing so well and the lip which had been quite freely movable was beginning to again become stuck to the lower teeth, making examination quite painful.

Complete blood pictures were taken at regular intervals and five of these are given:

	Oct. 3	Oct. 9	Oct. 27	Nov. 1	Nov. 14
Myelocytes.....	0.0	0.0	0.0	0.0	0.0
Polymorphs.....	8.0	10.0	12.5	12.5	0.5
Lymphocytes.....	92.0	60.0	65.0	65.0	87.5
Bands.....	0.0	10.0	0.5	0.5	0.0
Juveniles.....	0.0	16.0	0.0	0.0	0.0
Lge. mononuclears	0.0	0.0	22.0	22.0	2.0
Eosinophiles.....	0.0	0.0	0.0	0.0	0.0
Lymphoblasts.....	0.0	0.0	0.0	0.0	10.0

The report of Nov. 14 on the blood picture by the pathologist was: Lymphatic leukemia, with fairly numerous lymphoblasts. Her condition was then realized as hopeless and no further blood pictures were taken.

One further point of interest in the case was the gum condition around the upper anterior teeth, which slightly increased in size during the time she was in hospital. This was not the ordinary hypertrophied gum condition sometimes found associated with cases where oral prophylaxis is poor. It was rather a definite enlargement,

or outgrowth, of the gums. This resembled the so-called "Pregnancy Gingivitis". The patient was apparently not pregnant and had a menstrual period shortly before admission. There was the thought therefore that the gum condition might be associated with that. It was not until later that it fitted into the picture of Leukemia.

It is very interesting that this case should have shown these two mouth conditions of enlarged gums and the gangrenous area of the lip some five weeks before the patient's blood gave a definite picture of Leukemia.

It is unwise to draw sweeping conclusions from a detailed report of one case. If these gangrenous mouth conditions are usually associated with as serious a blood dyscrasia as was present in this case, then any treatment of the mouth condition is palliative and simply keeps the patient from a somewhat earlier death from the toxins produced. There is against this idea the reports in the literature of cases cured by local treatment. It is unlikely that they were not true cases of Gangrenous Stomatitis, since the condition is easily diagnosed. Gangrenous processes in other parts of the body may result from well understood causes as Diabetes, Arteriosclerosis and Frost Bite, but these causes are unlikely in the mouth. Does the explanation of the successfully treated cases lie in the fact that while they were associated with a blood dyscrasia it was not of the acute nature of this case and it was possible to clear up these other cases because the treatment coincided with a remission of the seriousness of the associated blood condition?

PEMPHIGUS

A male patient of about 50 was admitted to the hospital on Oct. 31. He gave a history of sore throat, followed by considerable bleeding from the

nose and a sore mouth. He had been ill for some six weeks and while uncomfortable did not seem to be seriously ill. He had been seen by several

men and received treatment in another hospital, without any benefit, before he was referred to the V.G. Hospital.

The admission record shows that he then had marked ulcero-membranous lesions of the mouth, tongue and throat. Tongue was heavily coated with a greyish white membrane. There were no upper teeth but the gums were a bright red around the lower anteriors. Lower lip was swollen. Nostrils were swollen and plugged with dried blood clots. The most characteristic feature was a number of yellowish patches on the soft palate and extending somewhat forward unto the hard palate.

The first diagnosis was Vincent's, but this had been ruled out by the time I saw him several days after admission, and no new diagnosis had

been made. It was easy to rule out Vincent's as he did not show the usual characteristics of that condition. The symptoms were quite unusual, but on the basis of the patches in the mouth I suggested the tentative diagnosis of Pemphigus. This skin condition is rare but has been reported in dental literature. One type, in particular, Pemphigus Vegetans starts in the mouth and then spreads to the body. This patient did not show any other signs of the disease on admission, but shortly afterwards a few sores appeared around the navel and now six weeks after admission have spread to the whole body. The general condition has steadily deteriorated and the outlook is hopeless, although a number of drugs have been suggested in the hope of ameliorating the condition.

ABSCESSSED MOLAR AND CELLULITIS

The only excuse for reporting this case is the rather unusual course it took. The eleven year old son of a prominent medical specialist was playing foot-ball and suffered a blow on the face. When I first saw him about a week after the accident he showed considerable swelling and tension of the tissues under the right side of the mandible. There was quite marked trismus so that the mouth could not be opened wide enough for adequate examination. I was able to determine that the first permanent molar was probably the cause of the trouble. In view of the fact that he was running a temperature of from 101 to 102 and that it would be necessary to use a general anaesthetic and forcibly open the mandible I hesitated to extract. We decided to call in a surgical confrère with the idea that it might be necessary to drain from the outside.

That evening we had a consultation

and by that time, while the temperature had dropped, there was a slight area of redness about the centre of the lower border of the mandible and beginning fluctuation. We both felt then that it was too late to hope for good drainage by extraction and decided to hospitalize the boy the following morning. On admission to hospital we started hot magnesium sulphate packs with the idea of speeding up the case for external drainage. Instead of the expected result the hard board-like swelling began to soften. Two days later he was able to open his mouth much more and it would have been possible to extract. Since it was a Saturday, treatment was continued until Monday, when there was no difficulty in using an inferior dental block and extracting the tooth. There was no reaction and he was discharged Tuesday with the original swelling almost gone. His further recovery has been uneventful.

"The clever man makes hay with the grass that grows under the other fellow's feet."

Preventive Aspects of "Endodontoclasia"

By CLIFTON O. DUMMETT, Sr., B.S., D.D.S., M.D.S.

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THE word "Endodontoclasia" is proposed to present a terminology in keeping with the pathological effects produced on the pulpal tissues. Endodontoclasia would therefore be any destructive disease of the endodontium or the tissues within the tooth.

A great amount of time and effort has been spent in presenting to the profession various methods of saving teeth after the tissues within the latter have become involved in some disease process. Comparable effort has been spent in trying to prove the relation between these involved tissues and systemic disease, and on deciding whether or not to treat or extract teeth. In the avid discussions of these issues, the proper emphasis on prevention of endodontal disease has been lacking.

The delicate nature of these tissues, their embryonic character, and the rigid quality of the dentine walls are three important conditions that contribute towards the fact that it is relatively easy for the pulp to succumb following injury.

Prevention of endodontoclasia is much easier and certainly better than all attempts at curing the condition. The following is a ten point program of prevention that may be presented to every patient coming to the office or clinic. Explanations and insistence on the carrying out of the program will very definitely result in a lesser number of pulp treatment cases.

1. *Have your dentist treat all beginning Caries.*

The most common cause of pulp exposures is Dental Caries which has progressed to the pulp. The time to treat Dental Caries is when it is in its

incipient stages and the cavities are pin points.

It is frequently difficult to make a patient understand that there are cavities in teeth when he cannot see them. Far more unfortunate is the situation wherein the patient believes that the dentists' explorer makes, rather than discovers cavities. Intelligent explanations, the use of bite wing roentgenograms, and picture charts are excellent methods of convincing the patient of the merit of the early discovery and treatment of Dental Caries.

2. *Use sugar and starches in moderation.*

The proven relationship between these organic compounds and caries activity would make for the truth of the observation that a lesser intake of carbohydrate makes for a lesser number and extent of carious lesions and a resultant diminution in the possibilities of pulpal exposure.

3. *Do not abuse the teeth.*

The main function of the human teeth is to bite and chew food. It is not intended that they be used on bones, nuts, ice, hard candies, pencils and all the sundry articles and objects that so often are bitten and chewed by thoughtless individuals.

This type of mechanical abuse of teeth may very often result in the severance of the single artery and single vein passing through the foramen apicale. Death of the pulp is the next step to this state of affairs. Also, the possibility of fracturing either the coronal or radicular part of the tooth and exposing the pulp to oral fluids should not be overlooked.

4. *Do not eat or drink too cold or too hot foods.*

Patients are very familiar with the sharp pains experienced in teeth when partaking of cold or hot foods. Ice cream, very cold water, various ice cold beverages, hot tea or coffee, and hot foods are among the common offenders in this particular respect. The sharp sensations of pain are and should be regarded as warnings that all is not right, and consequently individuals should avoid these irritating influences.

The anatomy of the tooth with its small apical foramen, the fact that there is usually only a single artery and returning vein through the foramen, and the knowledge that the sudden contraction and expansion of these vessels as a result of heat and cold experiences produce shock and pain sensations, can be very easily explained to patients to convince them of the danger of these frequent pulpal hyperemias.

5. *Avoid abnormal chewing habits.*

Although in these instances, the deleterious effects produced are more on the periodontal tissues, cases are known where abnormal chewing habits have produced mechanical injury and severance of the apical vessels, with subsequent pulp death. Bite on the front teeth, chew on the back teeth, and use both sides of the mouth are simple instructions that patients can easily follow.

6. *Beware of accidents.*

Of frequent occurrence are pulp exposures resulting from such accidents as a blow, a fall, or an impact with some solid object. These can often be avoided by cautioning patients about taking care of themselves.

7. *Beware of occupational hazards.*

There are on record several cases of pulp exposure resulting from abrasion and erosion. These patients often

present histories of being glass-cutters, or sand-blowers, or tool-grinders. The abrasive dust resulting from these operations are inclined to produce marked destruction of tooth structure and possible endodontal involvement.

Patients should be advised to see their dentists regularly.

8. *Chew vigorously to promote apical circulation.*

The pressure and relaxation exerted on the periapical tissues and the various anastomosing vessels aid in forcing out de-oxygenated blood and making room for new blood to these parts. In this way, stagnation of blood is prevented and the maintenance of high tissue tone assured.

9. *Clean the teeth and massage the gums.*

Malhygiene is one of the predisposing factors of Dental Caries. Patients should be urged to keep the teeth clean.

The close relationship existing between the blood supply of the periosteum, the gums, and the pulp makes it logical to assume that massage of the gums will give some little assistance in the renewal of the circulation to the pulp.

10. *See your dentist at least twice a year.*

This final point in the ten point program is one that should be stressed even more than it is. It is only in this way that the dentist can make a thorough examination of the teeth, after just as thorough a prophylaxis, to detect the earliest symptoms, which if not immediately alleviated, prelude the advent of Endodontoclasia.

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The doorstep to the temple of wisdom is a knowledge of our own ignorance.—Spurgeon.

The Forum

HEALTH AND FITNESS AT FIFTY*

by ROGER I. LEE, M.D., Boston, Massachusetts

DESPITE the publicity and ballyhoo about preventive medicine and periodic health examinations, most patients still have a single major objective in consulting their physician. He or she has some particular problem or query. Many times no doubt, a cloak of pretense that a general examination is sought, covers the real object of the visit. Certainly enough printers' ink, radio time and other mechanisms of publicity have been employed to achieve a different setup. Just at this time the whole nation is concerned with the health of its young men and their fitness for war. The actual standards of fitness of youth for war are by no means agreed on. Discussion rages about a tooth or two, a pound or two, a letter or two on the eye chart. Certainly if there is no real agreement as to what constitutes fitness for the army in youth, it is no wonder that the situation in regard to health and fitness at fifty is indeed chaotic. It is my purpose to attempt an explanation of this situation. That the result desired can be accomplished is seen in certain circumstances. For example, dentists have achieved much in a relatively short time. Those of us who have less and grayer hair than formerly have gaps or corrected gaps in our bites which bear testimony to the fact that the main objective in seeking dental attention in our youth was an aching tooth. Nowadays, the dentist summons his patients periodically. Moreover, this process be-

gins at most social levels in childhood. Then, too, dentists have taken up enthusiastically the notion that health affects the teeth and that teeth affect the health. Already most of the intelligent laity have some sort of an idea, perhaps hazy and spotty, that diet and vitamins are concerned in the development of good, sound teeth. Moreover, on the other side of the picture this same laity will often consult their dentist before they do their physician to investigate the teeth as a possible cause of a new ache or pain elsewhere in the body. Often they will have roentgenograms and will endure the loss of teeth, some of which indeed may be useful and harmless members of their dental family, before they seek medical advice. Of course, the medical profession has been an active agent in all this, but it seems to be a fact that in its field the dental profession has been able to accomplish something that the medical profession has been unable to do. The dental profession by and large has accomplished this by the individual efforts of the individual members and through the personal dentist-patient relationship. The schools of dentistry are not enormous, nor richly endowed. There are few laboratories devoted to the problem of dental science. And this is a curious fact, that raising money for a dental school, for dental education and for dental research is extraordinarily difficult, yes, well-nigh impossible. And yet the public has accept-

*Abstract of Mayo Foundation lecture presented April 16, 1942. Reprinted in part, by permission, from the Proceedings of the Staff Meetings of the Mayo Clinic.

ed preventive dentistry and periodic dental examination with convincing finality.

In one specialty of medicine preventive medicine has progressed far. Of course, I refer to pediatrics. I have never been entirely sure just when or just how this came about. I know of many worthies who are referred to as fathers of pediatrics. I even know something of the movements of baby clinics, well baby clinics, milk stations and the like. I appreciate too the universal appeal of infants and children. But somehow not until the mother and doctor teamed up did progress occur and what progress! This progress took place not only along the stereotyped lines of preventive medicine, smallpox vaccination, Schick testing, diphtheria immunization, and so forth, but also in regard to removal of such defects as infected tonsils and adenoids. I think, however, a thoroughgoing revision of diet has been more truly indicative of this trend. Such has been the impetus of this movement that not only is an extraordinary diminution of infant and childhood mortality being witnessed, which means of course the adoption of appropriate measures in mass as well as individually, but the extension from child practice to the field of adult practice, in such matters as health habits, diet, exercise and weight is occurring.

Some progress has been made in adult practice, but it has been disappointing and not commensurate with the publicity efforts.

The man of fifty goes to see his doctor or to a clinic usually because of some one compelling problem and egged on or perhaps nagged on, by a friend or a wife. The doctor cheerily asks him about his family history, which is likely to be somewhat gloomy. After rattling the family skeletons for a bit, the doctor gets down to the patient's past history, on which the patient is ordinarily vague. Then come the personal and present history and any complaints. The patient may admit a queer pain in his chest and add hopefully "Oh, just the sort of thing

most folks have." By this time, the patient is rather on the defensive. "Yes," maybe he does smoke too much but that is just temporary and he is going to do something about it. Anyhow, he once tried giving up tobacco entirely and he felt terrible and was not fit to live with, so he yielded to his wife's suggestion that he was better off when he smoked a little. His diet? "Oh, yes, just ordinary food." To be sure he has put on weight and "isn't it extraordinary that it does not make much difference how much a fellow eats?" He knew a thin man who ate enormously. Anyway, his family was all heavily built and he supposes that that is his nature and fate. And so it goes. Finally the examination is performed. The patient gets rather worried about the examination of his heart particularly if he has to have the size determined by a roentgenogram or its function studied by electrocardiograph. If the heart is reported as satisfactory, both the patient and doctor are relieved. He wishes to know whether his blood pressure is all right, how much it is and how much it ought to be for him. He is also pleased with the report that his urine is normal. Perhaps the experience ends here. The doctor reassures him about his heart, blood pressure and kidneys, and perhaps adds he is working too hard, and ought to take a vacation. He is overweight and perhaps he gets a diet slip which he places carefully in the corner of his desk or bureau drawer where it joins a goodly company of mementos, varying from signed dinner menus, to fancy dental bric-a-brac which would help him chew on one or both sides if he ever used it. Perhaps the physician's parting comment is, "Come in next year and we will look you over again. Shall I send for you?" The patient tells his wife he is sound as a nut; perhaps he smokes too much and he needs a little exercise and a vacation. He cannot take it just now, but a little later perhaps.

All this is important as far as it goes. If the patient had any declared disease,

it would be discovered. The doctor would feel at home then and he would do a first class workman-like job in the best medical tradition. But ordinarily there are great drawbacks. First, the doctor never gets to grips with the actual situation. The patient feels that he is getting a bill of health as of the day of the examination. The patient finds little or nothing of a constructive nature against his future. There is no long range health forecasting.

Obviously, patients of fifty years have seen their contemporaries die in increasing numbers. Of course, there are the accidents of infections and of cancer, but the query is what is the probability of the next ten to twenty years and is it possible to avert or avoid trends of disease or deterioration that patients expect the doctor to recognize? Death may be better than deterioration, but the patient actually wants neither. That is his major problem. But he does not get the impetus to put and keep his house in order as he probably would with his dentist. Somehow, most of even his minor or petty problems did not get reviewed. How many things have to be accepted as a penalty of being fifty? Gray hair, sparse hair, yes, but what of a crop of variegated spots which seem to accumulate, what about sex, what about snoring, and what about falling asleep in his chair after dinner? Exactly what ought he to do about exercise?

It is not just living, it is living the full life, the happy life and abundant life as far and as completely as the fates decree. Certain handicaps, handicaps of heredity, handicaps of accidents, of infections or emotions, and always handicaps of environment, circumstance, including marriage and children, and fate over which control is not complete may have to be accepted. But beyond these, it ought to be possible to guide footsteps toward a fuller life.

I have seen men, and some of them the healthiest men of my acquaintance, who only took exercise in the form of smoking and conversation. Donald M.

Nelson, who seems to be doing a good job for his country at fifty-three, is reported as saying, "The only exercise I take is being pallbearer for my friends who have always exercised to keep in good condition." There is another group whose well being seems to depend on a program of regular exercise. It must be borne in mind, however, that at fifty some of these habits of exercise are rather fixed and it is the part of prudence to change these habits slowly and after due consideration. A man of fifty who continues his violent exercise in the form of severe competition is probably courting trouble. Some wise man has said that it is given to few men to be professional (that is to excel) in more than one walk of life. A professional golfer, horseman, guide or racquet player may continue a competitive form of exercise that would be highly detrimental to a lawyer, business man or doctor who tried to excel in two things and who probably would fail at fifty in both. The same is true in the nonphysical fields. Some doctors, lawyers and business men are excellent bridge players but few excel in both bridge and their profession. That the public recognizes this is seen in the advice to successful professional men to employ a *nom de plume* when they publish novels or poems. The public does not want the man who practices his profession as a hobby, and who is actually a professional golfer, bridge player, or even a novelist. Neither does the public want a 'jack-of-all-trades. Man should play and not work at his hobbies.

Only a few individuals of fifty will take exercise as such. They want an objective. The woman of forty-eight beginning to be "hippy" will punish herself severely with a dull program of monotonous exercise if she is convinced thereby that she can "slim" those hips. But the popularity of golf demonstrates that men and women of fifty like the pleasure objective in their exercise. Golf is a subtle game. Primarily, it is a device for getting a half hour's exercise in two hours and a

half. Actually, it is intermittent walking in the open air over pleasant, rolling country, punctuated by violent and exasperating use of the arms. But so cunning is the game, that an occasional good stroke, the rare par hole and rarer birdie, the chance defeat of an opponent, especially if he is young, athletic and handsome, and most especially if he is your business associate or your filial relative, lures you on to more lessons, more clubs, more games, more mild exercise and even to vacation. But golf is not hard exercise even if it is long. Golf is not a reducing exercise as a glimpse of the golfers against the sky line will disclose. And furthermore, there is always the nineteenth hole which is sometimes played exclusively by the veranda golfers and is the favourite hole of many golfers who set up tremendous scores for that hole.

Some physicians prescribe and many men try some form of "setting up" exercises as a substitute for exercise. For those whose personality patterns need a pleasure objective, dalliance with setting up exercises is usually short. But a few methodical souls find setting up exercises convenient and time saving.

Curiously enough, the civilized world is rather universally bowel conscious, and, in general, the man or woman of fifty is anxious to avoid cathartics which each carefully distinguishes from laxatives. They are beginning to be weight conscious but whether the men and women in the twenties and thirties will have the determination to carry through for the fifties is still to be demonstrated. Appetite, however, must be put under control. Not every individual can substitute low caloric bulk for his usual quantity of food without gastro-intestinal disturbance. Diet is vastly more than total calories. A restricted caloric intake demands consideration of the alcoholic intake. Then, too, besides some concern of balance, the restricted diet behooves special consideration of vitamins. At this time, it seems clear that it is necessary perhaps and even probably

often desirous to utilize the drug store with its vitamins to supplement even ordinary diets. A diet that is restricted frequently becomes a lopsided high caloric diet. Consequently, in and of itself, the bland diet of gastric ulcer, gastric neurosis, spastic colitis of whatever origin will present not only problems of excessive calories but problems of lack of vitamins in many instances.

In the many complex factors that go to make up the personality pattern, heredity is doubtless of great importance. Likewise is environment, which can be broken down into such factors as the job, financial security, domestic relations, work, diversion, sleep, food, and so forth. We are on the threshold of discovering the relative importance of the endocrine glands in the personality pattern. Some obvious disturbances of these glands form definite pathologic entities. Myxedema may be used as an illustration, just as scurvy is as an illustration of vitamin deficiency. But, as in the case of vitamins, there are many conditions not as yet clearly recognized in which the endocrine deficiency is not marked as in myxedema. Sterility, for example, in animals may be associated with vitamin deficiency or with glandular or hormone deficiency. Apparently, the same is true in the human species. The glandular deficiency or dysfunction is now recognized and can often be corrected in that clinical state known as the menopause. Evidence is accumulating that a somewhat similar condition may exist in men, the so-called male climacteric and may be corrected. It sometimes seems to happen that the development of maturity in both males and females, may be arrested, retarded or insufficiently executed. The clinical picture is clear in marked cases, but data are now accumulating to indicate that insufficient, or an imperfect development of maturity with a wide train of variegated symptoms is by no means rare, indeed may possibly be common.

Such glandular dysfunction and irregularities seem to have marked effects

on the personality patterns. Much study is necessary to throw light on these complicated problems and especially on their treatment. Nevertheless, substantial beginnings have been made and it is now possible to correct certain outstanding dysfunctions of these endocrine glands. Doubtless, the future will disclose new and lesser degrees of glandular irregularities of function and the indications for the correction of these. As I have said, these dysfunctions and irregularities seem intimately associated with the personality patterns of individuals and are thus connected with the successes and failures, with happiness and sorrow, with the fullness and the inadequacy of life. This far we have discussed largely the physical aspects of our men and women of fifty. A little has been said of personality patterns, of heredity and of endocrines. But what of mental health, or hygiene, nervous health, emotional health at fifty? It is the fashion rather to side-step this whole field unless there is a very obvious disturbance. In such events, a psychiatrist is usually summoned to take charge. Yet Alvarez has been emphasizing for years that most gastric symptoms are functional and not organic. As a generality we doctors, in our examinations, deal with work rather than worry, but it is worry that makes people sick rather than work. And worry is related to the person rather than to the fact that there is cause of worry. The old saying is that there is the right amount of worry in the world but the wrong people do it. People are supposed to worry about money but the rich worry more than the poor. A person worries because at some particular time he is in a worrying mood and he easily finds something to worry about. Our friends in mental hygiene have been telling us this for years and mostly we have done nothing about it. We sadly need new techniques in this whole field. Undoubtedly, some people enjoy worrying as some people like drinking and some of the selected results of alcohol. The nervous, worrying patient of fifty,

of forty, of thirty, or of twenty, if you will, may present an unstable blood pressure. The intelligent doctor knows that in a substantial proportion of such cases, this process will eventuate into permanent hypertension. Shall we doctors wait until the patient has permanent hypertension and then submit him to sympathectomy of some kind if he has not unilateral disease of a kidney? Or shall we wait for a renal extract? Perhaps we may tell him not to be nervous and not to worry. Personally, I have never known anyone to be helped by merely telling him not to worry. But can anything be done about it and can anything be done at fifty? The psychiatrists say emphatically, "Yes." We at least do not have to dodge it and pretend it does not exist. We now discuss sex with our patients. We can discuss the patients' anxieties and apprehensions. Likewise, we can discuss their depressions and their exhilarations. We may find some physical relationship, sometimes endocrine, sometimes more obviously chemical. We can, without being psychiatrists, try to balance his mental, nervous and emotional activities, just as we do his diet or his physical activity. At least, we must recognize this large section of the pattern of the patient. Disturbances in that field may not kill him but they make him wretched and unhappy. In all probability, it is the nice adjustment in this field that makes for real effectiveness in life's labour and real happiness. It is the well adjusted human being who is healthy and fit, even if he is afflicted with many physical defects. There are countless instances of individuals with marked physical handicaps who have achieved fame in spite of physical shortcomings, because they were mentally, nervously and emotionally fit for the job.

We appreciate that many individuals are inefficient and unhappy or both on account of their attitude towards life, society or individuals. Re-education of these individuals can, in some instances, accomplish much.

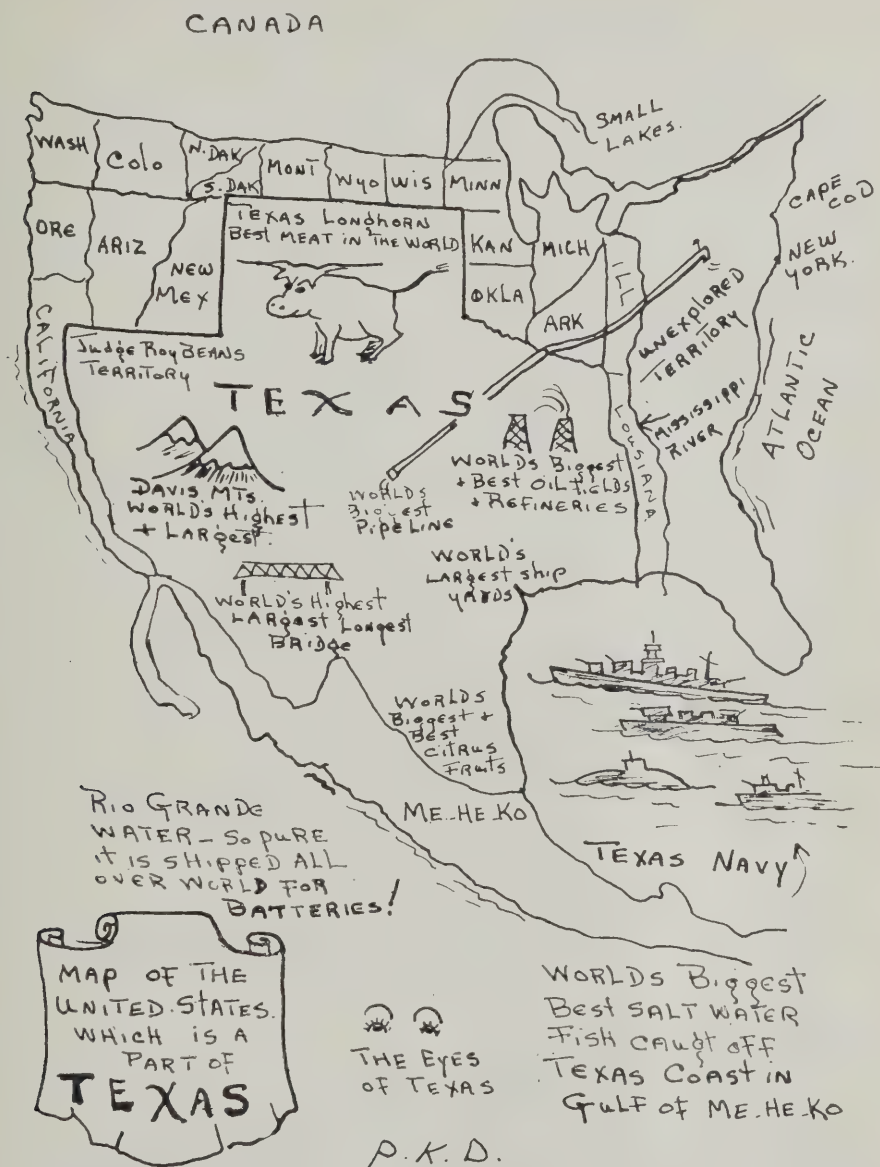
I have endeavoured to set forth a

few of the problems that affect health and fitness at fifty that do not come within the narrow confines of a stereotyped examination. It is my contention that the certification that the heart is sound, the blood pressure reasonably within established limits, the urine normal and the weight in ordinary and not astronomical figures is important but that is what the life insurance examination does, namely, the hackneyed separation of the diseased and nondiseased. Such an examination is largely negative, although there are very positive benefits in the discovery of manifest disease, some of which can be corrected after such an examination. But the shortcomings lie in the failure to improve health and fitness, to ensure if possible a fuller and happier life. At this time, the man or woman of fifty is often vaguely conscious of a dissatisfaction with his well-being. If he or she is so silly as to yearn for youth and its ardent fires, he, or she, is yearning for a biologic absurdity and is attempting to make the sun stand still water to flow uphill, or to defy the laws of gravity. But at fifty he has a right to expect that medical science can help him to prolong his usefulness and his happiness if not his life and to make him more fit and more adjusted to his job and life.

This should be given greater recognition by the medical profession. It should become an integral and important part of preventive medicine and should be adopted into the technique of periodic physical examination. The examining physician should come promptly to grips with the patient concerning his exercise, his diet, his glands, his emotions, to use only the illustrations which I have discussed. This has been done by the dentist in his dentist-patient personal relationship. It has been done by the pediatrician not only in the personal relationship but also

with moderate success in mass relationship. At this time, it is not possible to advocate special techniques, but it seems certain that these problems are personal and individual in many instances and require a personal relationship. An impersonal relationship may be all that is necessary in the treatment of cardiac disorders in some instances. Even if the patient is bothered by the impersonality, the therapy may be technically correct and adequate. But in the field under discussion, because it is pioneering, experimental and apparently at this time, highly individual and personal, it is difficult to see how the personal physician-patient relationship can be replaced by mechanical or mass technique. Furthermore, it seems to me that this is the particular field in which the traditional physician-patient relationship will work most effectively. It is in this field that knowledge of the patient that goes beyond what the patient may say or admit, and knowledge of the patient's personality pattern is bound to be a large factor in the successful diagnosis and treatment. It has been said often that medical diagnosis consists of making the right guess on insufficient data. When the diagnosis depends solely on exact and complete instruments of precision and when therapy can be carried out purely mechanically in most of these instances (but even then I deny it all) the physician-patient relationship may be unnecessary and perhaps an anachronism. But certainly there is need of this relationship in many fields, and if the medical profession recognizes this and develops it to the extraordinary possibilities that already are in sight, there will be a restatement of the purpose of the practice of medicine and a restoration of the physician to the traditional affections of the public. For men and women of fifty are the most valuable and most important group in society.

The wise man studies others, so that he can learn from their mistakes and at their expense.—William Feather.



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Children are not interested in health. The appeal to children must be of a social nature. Interest in health is acquired, and becomes more intense as we grow older. Tell children that dentistry is part of the game of life and that the game of life is the biggest of all, and the most exciting. The best way to tell your story is through anecdotes.—James Robinson.

THROW AWAY YOUR KNIFE AND FORK

by EDWARD J. RYAN, Chicago, Illinois, in *Dental Digest*.

I HAVE been pondering the deep social and health significance of the "chicken-in-the-rough" method of serving food. Sometimes I would like to think that some wise dentist could convince the food purveyors and the etiquette arbiters to accept "chicken-in-the-rough". With changing health concepts there have been some hopeful reversals of opinion, so that we may again turn our children loose on raw foods rather than sticky pabulums. There is renewed insistence that infants be fed at the breast, when there is no contra-indication for doing so, in preference to the strangling nursing bottles. Again we may urge that the musculature of the entire face be thrown into function in eating—thus, we may be getting somewhere in correcting and preventing dental disease.

Seymour A. Watsky is a brave dentist of New York. He has written a sensible article under the title, "The Knife and Fork, Primary Cause of Periodontoclasia, Dental Caries and Malocclusion." Let's let Doctor Watsky argue with Emily Post in his own words:

"The knife and fork—symbols of civilization and gentility—may be the primary causes of periodontoclasia, dental caries and malocclusion. Correct eating habits, or shall we say socially approved table manners, are among the first the human infant must acquire. Until the child has learned to manipulate the omnipresent knife and fork and spoon, some solicitous adult is certain to cut his food for him. The anterior teeth are virtually never permitted to function. Let us stop and think what this implies.

"It is universally agreed that the principal natural functions of the anterior teeth are the prehension and incision of food. However, the knife and fork have usurped these activities and have completely displaced the primitive method of seizing and tearing food with hands and teeth. Food is incised

with the knife, seized by the fork and carried to the tongue. The tongue conveys it to the occlusal surfaces of the posterior teeth, where the mass, previously softened by modern refining and cooking, is ground with slight effort into a soft bolus. The posterior teeth have had a little exercise, the anteriors none at all.

"We are mindful of the fact that most periodontists and research workers deplore the absence of an abrasive factor in the proper human diet. We also recognize and endorse the belief that it is necessary for cuspal inclines to be worn flat and for the anterior overbite to be reduced by abrasion to a tip to tip relationship for conditions of occlusion to prevail such as are present in the mouths of a few of our elderly patients of foreign extraction and in most primitive skulls. These exceptions to the rule of pandemic periodontoclasia and dental caries quite frequently possess a full complement of teeth, freedom from dental caries and a healthy periodontium. This healthy condition has been accounted for on the basis of the abrasive character of the primitive diet or on its superior nutritional qualities. But, it is our opinion that, as long as the knife and fork custom persists, no amount of abrasion of the posterior teeth or nutritional perfection will compensate for lack of attrition through the continuous free exercise of the incisive and prehensile functions of the edges of incisors and cuspids, from the time of their eruption until the period of old age. The overbite, unreduced by wear directly on the edges of the anterior teeth, restricts the excursions of the mandible to short arcs of extremely limited radii. In this circumstance abrasives, if present in food or if artificially supplied, succeed only in:

"1. Deepening the fossae of bicuspid and molars.

"2. Increasing, rather than diminishing, cusp height.

"3. Abrading lingual surfaces of upper and labial surfaces of lower anteriors without reducing crown length.

"4. Adding to the depth of overbite.

"5. Closing the bite.

"6. Greatly increasing lateral stress, occlusal trauma, wedging and food impaction."

Again, a careful observer, such as Watsky, is pointing out that as we ascend the so-called cultural scale, we rapidly disintegrate and descend on the physical scale. Soft beds gave us insomnia; automobiles gave us flat feet and protruding abdomens; bridge tables gave us stooped shoulders; soft and highly processed foods and lack of function have given us thin faces with crowded, carious teeth.

Nobody is suggesting that we dig ourselves a cave in the side of a rock, throw away our clothes and grow some fur, eat raw meat and swing from tree branches. But we can resist some of the encroachments of civilization. The war is going to help us. We are going to have to walk more and eat less of the wrong things. No one who ever led a back-to-Nature movement received anything except cat-calls and the accusation of being more than a bit nuts. And I am afraid if we walked into the Waldorf-Astoria, pulled off our coats and rolled up our sleeves, tossed away our knives and forks and went to work with our fingers on an order of raw vegetables and bright red meat, however good they might be for our periodontium, we would be on our way to a padded cell in Bellevue—promptly.

OBESITY

OBESITY results only from over-eating, contends Cutting, in Chem. Prod. (7:49 (1944) No. 7-8). Or, he adds, it may be caused by under-exercitation. In any case, more food is eaten than is needed by the body. Treatment must be primarily by control of the

diet. He discusses the drugs usually employed in obesity (thyroid, dinitrophenol, amphetamine, belladonna, saccharin, etc.) points out the lack of value in each and concludes by saying that they are generally undesirable.—Medical Times.

HOW OLD IS YOUR MOUTH ?

Reprinted from Texas Dental Journal

GIVEN over Radio Station W-I-R-E, Indianapolis, Ind., May 17, 1943, for the Indiana State Dental Association.

"The mouths of people are generally from ten to twenty years older than the rest of the human body. There are a number of factors which influence this condition. The greatest of these is the apathy of the public towards health dentistry. This represents one of the major problems before the Dental Profession.

Dentists and physicians do not make any money out of good health—only out of disease—yet, they are constant-

ly trying to teach a careless public how to avoid spending money for their professional services.

The whole story of Dentistry is written around two things—cleanliness and balance. The dentist must first exhaust all of his dental knowledge, means and equipment in the operation of a sound diagnostic program. This is generally followed by mouth prophylaxis or complete cleaning of all teeth, treatments where indicated, and the removal of anything which may threaten the health of the patient. Now there is absolute cleanliness of

the mouth. The next step is to bring the mouth to proper balance through the most delicate engineering known only to dentistry. This is achieved through the restoration of natural teeth as close to their original form as possible and the replacement of lost members by various dental appliances designed according to each patient's requirements. In the ideal state, the mouth is perfectly clean and in balance. The artist always begins with a clean canvas and then pursues certain mechanics to insure aesthetic results. So it is with dentistry.

Dental disease, in nearly all cases, begins in early childhood and continues as a chronic disorder throughout life. The dental history of the average person would show that the mouth does not retain its youth very long. Little children develop dental disease in baby teeth and contaminate the food they eat, the water they drink and half the air they breathe. As they grow older, many are sent away to school to absorb the frightful diet of the average institution augmented by the consumption of numerous hot dogs, sodas, etc. When they reach their twenties and often before, most of these young people have numerous teeth restored by dentists. Some have become dental cripples and are forced to wear various appliances. By the time they are forty, the lips are a little thinner, the countenance more grim, the hearing not quite so good as it should be, the skin-tone of the face lacking in proper luster, while contamination of the food, water and air continues. Gum tissue has begun to disintegrate and supporting bone structure to break down. Their mouths are now growing old very fast. They are past middle life and general physical decline begins without special discernment. This decline is hastened by dental neglect. They are not going to die of typhoid fever, scarlet fever and other diseases more common to youth. They begin to die slowly. The body is being poisoned from tiny

sources. Most people are aware of the rest of this story.

People never die suddenly except by accident. Death is a slow process. So is the death of a mouth. The mouth is often the barometer of general health conditions. The late Dr. Charles W. Mayo stated that human life might well be extended ten full years through dentistry alone. A great many persons look upon the mouth as separate from the rest of the body. This is, obviously, a serious mistake.

The first school in all the world for the study of dentistry was established at Baltimore, Maryland. The course now takes six full years. Our physicians and surgeons may feel the necessity of instruction in foreign countries, but the dentists in other countries must come here. Here is where dentistry is practiced in its most beautiful and efficient forms.

Two American dentists—Drs. Morton and Wells—took physical pain out of the world for the purpose of surgery when they gave us ether and nitrous oxide gas anaesthesia. Because of these two great American dentists, you may move close to the valley of the shadow of death and rise to a happy, useful life. You can stand a little longer in the presence of those dear to you.

Some people believe that when we invented aeroplanes and steamboats, we brought magnificent gifts to the world. Look at the world today. These are instruments employed in the destruction of human life. Our supreme gift has been dentistry. It is a pure medium for the extension of life—not destruction.

With all our advantages, we continue to spend more money to keep sixteen million dogs alive than we do to keep our people's mouths from growing old too soon. We spend far more money for non-essential beverages than for dentistry. We spend more money for chewing gum, cosmetics and many other luxuries.

The average man spends more money with a barber than with a den-

tist. In fact, men buy only 25 per cent of the dentistry supplied. Men are not smart enough to go to a dentist. He changes the oil in his car every so many miles, but never thinks of having his teeth cleaned every so many meals. He insures his home against all manner of loss or injury but not his mouth. Yet, the home could be replaced—a perfect duplicate.

The average person spends little, relatively, for Dentistry during a lifetime. Financial budget plans used by modern dentists make the payment of dental bills much easier for the patient.

For every hour lost by striking workers, sixty hours are lost to labor by bad health. What a toll!

Little children should be taught that their mouths are lovely gardens and that their teeth are beautiful flowers. The gardens must be well-groomed and the flowers should spring from good rich soil nourished through a wise plan for nutrition.

The shocking reports on mouth con-

ditions of our young men entering the armed forces showed appalling neglect in civil life. But, what about our young women? What would their mouths reveal? They are our future mothers. Surely a nation that gave birth to dentistry as a subject well worth teaching should respond better than the record shows.

The mouth is the symbol of endearment. We offer our lips to those dearest to us in the world. Why not offer a clean, sweet, fresh wholesome mouth?

If your mouth is clean and in balance, your hearing is defended, your smile is brighter, your enunciation is purer, your breath is sweeter, your system is healthier and your life is longer.

Procrastination is the thief of teeth. When you allow your mouth to grow old too soon you are guilty of self-sabotage.

How old is your mouth?"

James Robinson,

Chicago, Illinois.

Thos. J. Dee & Co.,

GINGIVECTOMY VS. CONSERVATIVE TREATMENT OF PERIODONTOCLASIA

by OLIN KIRKLAND, D.D.S., Montgomery, Alta.

Summary of paper in N.Y. Jour. of D.

THE following are some of the reasons why I favour gum resection over subgingival curettage:

1. When the gum tissue overlying the periodontal pocket has been removed, the field of operation is unobstructed, and there is no obstacle to interfere with the free movement of instruments. The diseased area is open to view, and may be visualized at will throughout the operation.

2. Exposing the field of operation not only facilitates removal of existing causes of the disease, but establishes easier conditions for operating and at the same time, provides increased assurance of success.

3. Gingivectomy carried out under

anaesthesia is painless, and as a consequence, more satisfactory to both patient and operator.

4. The field of operation can be sealed with surgical dressing, which gives protection against pain, discomfort and infection. The protection thus provided may be continued indefinitely, or until new tissue has regenerated and become firm, resistant and healthy.

5. When impaired health of the patient necessitates immediate removal of focal infection, time and speed become very important factors. Gingivectomy not only provides speed, but thoroughness as well.

6. The area selected and anaes-

thetized may be thoroughly treated, and finished in one operation.

7. It is possible to treat the entire mouth in a fraction of the time, and with a small proportion of the energy consumed when the conservative method is used. As a consequence, gingivectomy has a distinct economic advantage over the slower technique.

It is the opinion of some of those

who do not favour gum resection that the teeth and gums are unsightly in appearance following the use of this method. In my practice, I have not found this to be true.

It is also claimed that the teeth are left permanently sensitive following treatment. I have had no more complaint from sensitiveness than when using the conservative technique.

ANNOUNCEMENTS

Dominion Dental Council Examination

There will be a Dominion Dental Council examination held in Toronto on May 10 to 15, inclusive. Class D fee should be in the Secretary's office not later than the first of April and the Class A fees, April 10.

A. J. Brett, Secretary,
Regina, Saskatchewan.

Refresher Course at Dalhousie

The Faculty of Dentistry, Dalhousie University, Halifax, is arranging a Refresher Course in Children's Dentistry to be held at the College February 28 to March 2 inclusive. The Faculty will be assisted by Doctor Paul Losch of the Harvard School of Dental Medicine and Children's Hospital, Boston, and by Doctor Stewart A. MacGregor of Toronto. Applications for the course should be sent to the Secretary, Dr. H. M. Eaton, Birks Building, Halifax.

W. W. Woodbury.

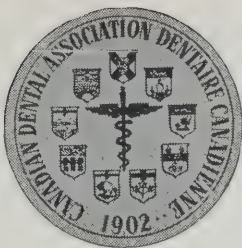
Refresher Course at University of Toronto

The Faculty of Dentistry, University of Toronto, is arranging for a refresher course in Dental Surgery, Periodontology and Dentistry for Children, February 26-28.

Secretary, Faculty of Dentistry, University of Toronto.

Western Canadian Dental Meeting and Refresher Course, Winnipeg, June 18 to 20.

Compared with what we ought to be, we are only half awake. We are making use of only a small part of our physical and mental resources. Stating the thing broadly, the human individual thus lives far within his limits. He possesses powers of various sorts which he habitually fails to use.—Prof. William James, in Dental Record.



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Dental Service for Discharged Armed Forces Personnel

The Federal Department of Pensions and National Health has authorized what is known as Post-Discharge Dental Services for the discharged members of the Armed Forces. The examinations and recommendations are made by officers of the Canadian Dental Corps. The patient is then referred to the dentist of his choice who is supposed to complete the work outlined upon a published fee schedule. If, in the opinion of the civilian dentist, the diagnosis is in error, or the recommendations do not meet the requirements, then the matter is to be referred to Ottawa with necessary observations, for investigation and further direction.

In the first place, the fee schedule is not satisfactory in the opinion of the Canadian Dental Association, particularly the fees allowed for prosthetic appliances and for periodontal treatment. As pointed out by the Toronto Academy of Dentistry, any magnanimity on the part of the Government should be at the expense of the Government and not at the expense of the individual dentist.

The original examination by the Dental Corps officer is made without prophylaxis or roentgenograms which as a rule means the impossibility of an accurate diagnosis. The patient then goes to his dentist of choice, to a dentist who perhaps has always obtained a much higher fee than many of his confrères and rightly so on account of his standard of work, and yet all dentists, under this plan, are expected to work on the same fee basis. The civilian

dentist then gives prophylaxis and takes the necessary roentgenograms and completes the diagnosis and if his findings are at variance with those of the Corps examiner, he must send his report to Ottawa for investigation and further direction. In due time, if this is approved, he may proceed with the work.

In the December Journal a very enlightening letter appeared by Dr. Chas. H. M. Williams of Toronto on this subject, in which a patient required periodontal treatment involving a fee of forty dollars while the maximum under the authorized fee schedule is eight dollars. Such conditions are bound to happen frequently. Perhaps many of these men do not require periodontal treatment but only prophylaxis; but if there are periodontal pockets which require elimination it is hard to imagine how the service could be rendered for eight dollars and even take care of office expenses on such a basis.

Furthermore, it is next to impossible for one dentist to make an examination even after giving prophylaxis and taking the necessary roentgenograms, which will be satisfactory to some other dentist who holds entirely different views about the practice of dentistry. In the Corps where there exists a standardization of dental diagnosis by one member and services rendered by another member, it may be practicable but when the services are rendered by a civilian dentist in his private office the present scheme just will not work.

The Toronto Academy of Dentistry has officially protested, so has the Eastern Ontario Dental Association, the St. Catharines Dental Society, the Manitoba Dental Association and no doubt many other dental organizations. The Board of Directors of the Royal College of Dental Surgeons of Ontario has gone on record as being unable to cooperate upon the present fee basis.

Furthermore, it should be pointed out that no standard fee can be set which would be satisfactory for all the dentists of Canada, as fees differ in various parts of our country due to a difference in living conditions. Fees in urban centres also differ from those in country districts.

It is obvious that some readjustment should be made. There are a number of ways by which some satisfaction could be obtained but the method of choice, in the opinion of this observer, is to allow the discharged man to go to the dentist of his choice and make any arrangements he likes, financial or otherwise, and agree to pay the difference to the dentist between the fee agreed upon and the fee schedule adopted by the government. In this case, the government would pay a stated fee, which might be smaller than the fee for a complete service frequently requested under the present plan. Therefore, the cost for service being less and because it would require fewer government officials to handle the arrangements, the total cost to the Government would be much less, which should satisfy this body. The dentist would be satisfied because he could do the type of work he considered indicated and at a reasonable fee. The patient would be satisfied because he would realize that he was obtaining the best service the dentist was capable of performing rather than have to accept second best on account of government regulations.

Furthermore, the patient could go to a dentist whose type of service was within the limits of his ability to pay as is done regularly now in civilian practice.

As stated in an editorial last month, there is but one way to solve these difficulties between the government departments and the civilian dentist and that is by the closest possible cooperation. The dentist wants to cooperate and will cooperate if any kind of reasonable plan is forthcoming. The dentist wants to see these returned men given the best possible service at a reasonable cost but he does not expect to render this service at a financial loss or else do inferior work, nor has he time to carry on an extended correspondence with Ottawa over every little problem which arises in diagnosis or during the progress of the work.

This situation is of major importance. There are implications which may affect the practice of dentistry for a generation and so it behooves every one of us to do everything possible to overcome this difficulty and not just sit back, refuse to cooperate, and like Macawber wait for something to turn up.

"God gives every bird its food, but He does not throw it into the nest."

M. H. G.

A Century of Service

A copy of the S. S. White beautifully compiled book entitled "A Century of Service to Dentistry, 1844 - 1944" reached the writer through the courtesy of Mr. Charles A. McKenna, Managing Director of the S. S. White Co. in Canada.

This book of 129 pages, cloth bound, and beautifully printed and illustrated, outlines the history of this organization for the past hundred years. This history parallels closely the development of organized dentistry as we know it today, dating from its inception which was in the days of the first dental college, the first dental journal, the first dental society and the discovery of anaesthesia. Before that time, there was little connected with dentistry which could even be considered scientific.

By 1929, the capitalization of this company was \$6,000,000 and at the time of writing this book there was no indebtedness other than current liabilities. Modern facilities, intensive research and engineering skill have created a condition where almost everything employed in dentistry is being produced. For 80 years this Company published the Dental Cosmos, the journal passing into history in January 1939 when it was combined with the Journal of the American Dental Association. However, its name shall never die as long as dentistry is practised, on account of the high ideals always kept in mind by its distinguished group of editors.

In reading this most interesting account of the development of a great

organization one cannot help but be impressed with the important contribution this company has made to dentistry throughout the years.

—M.H.G.

BOOK REVIEWS

Essentials of Oral Surgery, by Vilray Papin Blair, A.M., M.D., F.A.C.S., Prof. Emeritus of Clinical Surgery in the School of Medicine, and Prof. Emeritus of Oral Surgery in the School of Dentistry, Washington University, St. Louis: and Robert Henry Ivy, M.D., D.D.S., F.A.C.S., Prof. Maxillo-Facial Surgery in Graduate School of Medicine and Prof. of Clinical Maxillo-Facial Surgery in the School of Dentistry, University of Pennsylvania: with the collaboration of James Barrett Brown, M.D., F.A.C.S., Assoc. Prof. of Clinical Surgery in the School of Medicine, Washington University, St. Louis. Third edition, reset—1944. 624 pages. 467 illustrations. Published by the C. V. Mosby Co., St. Louis, Mo. Canadian Agents, McAinsh & Co., Ltd., Toronto, Ontario. Price \$7.50.

This work has been written as a textbook on Oral Surgery, particular attention being paid to the recognition of surgical conditions of the mouth and jaws, with few details of the technique of major surgical operations. However, there are many less serious surgical operations which come directly within the scope of the dentist and these receive detailed attention.

The following subjects are discussed:—Diagnosis; Surgical Technique; Infection, Inflammation and their Sequelae; Haemorrhage, Shock and Allied Complications; Wounds and Injuries of the Soft Tissues; Injuries of the Teeth and Alveolar Process; Fractures; Dislocation; Acute Infection; Chronic Infections; Surgical Operations on the Teeth; Surgical Preparation of the Mouth for Artificial Dentures; Diseases of the Maxillary Sinus; Tumours; Diseases of Mandibular Joint; Cleft Palate; Affections of Glands, Tongue, Lips and Nerves; and Anaesthesia.

In preparation of this third edition, an endeavour has been made to bring the sections on shock, haemorrhage, burns, and wounds up to date. The newer develop-

ments in the treatment of fractures of the jaws and in general anaesthesia have been added.

This book should prove a valuable guide to dental practitioners in dealing with surgical conditions of the mouth and jaws.

M. H. G.

The Dental Surgeon's Handbook, Modern Dentistry in Daily Practice by Marzell Bronner, D.M.D., and Max Bronner, D.M.D. 242 pages. 42 illustrations. Published in 1944 by John Wright and Sons Ltd., London, England. Canadian Distributors, The Macmillan Company of Canada, St. Martin's House, Toronto, Ontario. Price \$6.25.

This book is written for the purpose of presenting to the busy dentist a working handbook dealing in concise form with the problems and difficulties of chairside dentistry.

The book is divided into two parts. Part I deals with Diseases of the Teeth and Mouth; Bacteriology; and Materia Medica. Part II considers Orthodontics in Daily Practice and deals with Errors in Diagnosis and Treatment; the Application of Orthodontic Apparatus and Hygiene in Orthodontic Treatment.

In dealing with the treatment of various diseases, the authors state very concisely the methods used by many contributors to dental literature, even methods which have been tried and found wanting by the large majority of thinking dentists, rather than limiting their suggestions to those tried procedures which they have found to be best for the particular disease under discussion and outlining those better procedures fully enough for the average dentist to know just how to proceed. This must lead to confusion in the mind of the not too well informed reader. On the other hand, one can discover many forms of treatment which might suggest themselves for further investigation.

M. H. G.

NEWS FROM THE PROVINCES

MANITOBA:

Manitoba Dental Association

The annual January election of three members to the Board of Directors of the Manitoba Dental Association resulted in the re-election of the members whose terms were expiring, namely Paul Cleave of Neepawa, and D. G. Leckie and J. F. Morrison of Winnipeg. The latter was re-appointed Registrar and Sec. Eras., and Dr. C. D. McLeod of Winnipeg and Dr. A. R. Hurst of Brandon were re-elected President and Vice-President respectively.

Dr. A. E. Proctor was re-appointed as representative of the Association on the Dominion Dental Council and Dr. M. H. Garvin was re-appointed Delegate to the Canadian Dental Association with Dr. J. F. Morrison as alternate.

Dental Corps Auxiliary Reports Much Work During Year

The annual meeting of the Ladies' Auxiliary to the Canadian Dental Corps, M.D. 10, was held January 8 with Mrs. Reeve Morrison presiding. Mrs. T. P. McBryde, treasurer, reported an expenditure of \$1,061.39 in 1944, and a balance of \$305.90.

Each man entering the Corps receives a sweater and a pair of socks from the Auxiliary. Mrs. P. M. Johnstone and Mrs. H. W. Mitchell reported that officers and men were given parcels containing a pair of socks and 50 cigarettes when leaving on draft, and that 140,700 cigarettes and 162 Christmas boxes were sent to officers and men serving overseas. Members were affiliated with the Manitoba Hospitalization Service Association, the United Services Centre, Magazine depot, the train reception committee, hospital and family visiting, and the welfare committee of the co-ordinating board.

Winnipeg Dental Nurses and Assistants Association

This Association held its January meeting at the St. Regis Hotel on January 8. The president, Hazel Wylie, presided.

Miss Mary Ego gave an original paper entitled "What the Dental Nurse should know about Oral Surgery". It was inter-

esting and informative and thoroughly enjoyed by all the girls.

The remainder of the evening was spent in a round table discussion, to which each girl was encouraged to bring her own problems and helpful suggestions.

—Jane McClure.

ONTARIO:

Ottawa Dental Association

At a meeting of this Association held December 11, Dr. J. W. Morton of the Faculty of Dentistry, McGill University addressed the meeting on "Dental Amalgam and New Techniques in its Use".

Mr. Fraser Moffatt, auditor at the Ottawa Civic Hospital, outlined the Blue Cross Hospital Care Plan, in which the Association was interested.

Dr. C. W. Sheridan, Chairman of the committee for pre-school dental treatment, presented a report on the committee's activities.

The meeting was presided over by Dr. Thomas Provost, President of the Association.

Brantford and Fluorine

The Ontario Department of Health has advised the City of Brantford that it has carefully considered the proposed experiment for adding fluorine to the water supply for the purpose of establishing the relationship between the presence of an adequate amount of this drug in the domestic water supply and the lessening of the incidence of dental caries.

It has advised that it is satisfied that the treatment of the water presents no health hazard and the Department agrees to participate in the experiment to the extent of having representation on a technical committee, such committee to be charged with the responsibility for the over-all supervision of this experiment.—Toronto Telegram.

To Permit Lower Excise as Aid to Dental Health

Under provisions of an order in council passed at Ottawa, the city of Brantford will be required to pay an import duty of only

seven and one-half per cent instead of 17½ per cent if sodium fluoride is imported from the United States for Brantford's proposed water fluorination experiment. Sodium fluoride is not made in Canada. Approximately 80 per cent of Canada's present imports of sodium fluoride are for the purpose of disinfecting.—Toronto Telegram.

**Dr. C. H. M. Williams, Guest Essayist,
Academy of Dentistry, Toronto**

On January 17, the Fellows of the Toronto Academy honoured a colleague in the person of Dr. Charles Williams. It is often said: "A prophet is not without honour save in his own country," but Dr. Charles Williams has truly won respect and esteem from his most intimate colleagues. He is greatly admired for his ability as a teacher, his likeable personality and his great patience in that nothing is any trouble if he can get over a truth in all simplicity. Dr. Williams is an intimate and close associate of Dr. H. K. Box who has made tremendous contributions to the understanding of and the treatment of diseases of the soft tissues about the teeth. In regular stated meetings, it is usual for the Academy to invite their guest essayist from out of town and only on rare occasions is a member of the Academy given this distinction. Dr. Williams measured up to what was expected of him and his program will probably be the high light of the year.

Class '17 Reunion

The freshman class of 1914 graduating in 1917 will hold a reunion party during the Ontario Dental Association Convention on Monday, May 28. All members of this class are urged to make plans to attend. This includes any graduate associated with the regular class during college days.

H. Doug. Leuty.

Faculty of Dentistry

Dr. George W. Teuscher of North Western University, Chicago, has been secured as guest instructor in the post-graduate course, "Dentistry for Children," to be held on February 26—28 at the Faculty of Dentistry, University of Toronto.

Dental Nurses' Alumnae Association

The Dental Nurses' Alumnae Association held their postponed Christmas Party on Tuesday, January 9, at the University Women's Union. The President, Mrs. M. J. Walker, presided at the meeting at which the Dental Nurses in training at the University of Toronto were guests. Miss Jeanne Alison, music convener, introduced Miss Tillie Young and Miss Pat. Gilverson who gave several vocal selections.

A shower was held for the Babies of Britain and about seventy articles were received.

Miss Jean Bryson, social convener, announced that the Annual Bridge will be held on Thursday, February 15th, at the I.O.D.E. headquarters. Refreshments were served at the close of the meeting.

Ida E. Davis.

Ontario Dental Nurses' and Assistants' Association

Patriotic Donators and Knitters Club: On December 18, the Ontario Dental Nurses and Assistants held a party for the patients at the Red Chevron. Forty-one letters of appreciation have been received and it truly makes us feel that the evening was a huge success.

The Christmas Raffle held by the Windsor Affiliated Association realized \$55.53 and we say a very special "thank you" to each member for her loyal support. Despite the record snow storm in December, the Toronto members raised \$76.00 at the Rummage Sale on December 16.

We are eagerly looking forward to renewing acquaintances with Sgt. Aileen Ridealgh, C.D.C., Overseas who anticipates an early return to Canada.

Are you still saving *de-capped carpules*? They are still in great demand . . . so, please send them Express . . . collect to Leta B. Blaber, 148½ Bloor Street, W. Toronto.

Toronto Affiliated Association: Mr. Don Henshaw addressed our meeting on January 8, which was our Annual Doctors' Night. Those present were spellbound as he delivered his talk on Public Speaking. We were pleased to welcome many Toronto dentists and Dr. Harold Skilling, President, Academy of Dentistry, expressed the appreciation of

those present for the opportunity of meeting with us. At the conclusion of the meeting, light refreshments were served.

Hamilton Affiliated Association: On December 13, our members were guests of the Hamilton Dental Association. Dr. E. Amos, Brantford, gave a brief history of the life of Dr. Horace Wells, discoverer of the use of Nitrous Oxide for general anaesthesia. A demonstrated talk on Immediate Denture Service was given by Dr. W. B. T. Amy, Toronto.

Mr. Wm. McTavish, National Refining Company, addressed the dinner meeting held at the Scottish Rite Club on January 10. He outlined the new Oil Bath Technic for lubricating and sterilizing the handpiece in one operation. Mrs. Irean Bruce, President, Ontario Dental Nurses' and Assistants' Association, Mrs. Tomye Turner, Toronto, Sgt. Gagnon, Sgt. McAllister, and Cpl. Smith were our guests at that meeting.

London Affiliated Associations Miss Margaret McAuliffe was hostess at a Hard Time Party held in place of our regular December meeting. One of the main events of the evening was a penny sale . . . proceeds going to the War Fund.

The meeting on January 3, was held in the office of Drs. Fuller and Giffen. Dr. J. F. Giffen, a member of the Board of Directors, R.C.D.S., outlined some of the duties of the Board.

Windsor Affiliated Association: A Christmas party was held on December 18 and twenty-two members enjoyed themselves immensely. Mrs. Ferna Cook, hostess, conducted a spelling bee for which Nora Kelly won first prize. Christmas gifts were exchanged and at the close of the evening, our host drew the winning number for our Raffle.

At the January 9 meeting, it was decided that proceeds from the Raffle be donated to the P.D.K.C. The Care of Office Equipment was the subject of a lively Round Table Discussion.

Brantford Affiliated Association: The Brantford members met in the Reading Room of the Y.W.C.A. to complete the quilt for the P.D.K.C. No business was conducted at this meeting.

Arlene Jemison Creeny.

NOVA SCOTIA:

Brief Synopsis of a talk given before the Halifax Dental Society on November 23, 1944 "Dentistry at the Cross-roads" by W. W. Woodbury.

"Years ago Dentistry determined to be a profession. It was much slower developing the willingness to pay the price that such a status requires. In fact it is only very gradually realizing what that price is."

"Dentistry is a body of therapeutics, as is ophthalmology or gynecology. Therapeutics to be effective must be built solidly on fundamental medicine, often called the preclinical sciences."

"A profession must be a 'learned profession' otherwise it is a craft. Dentistry to date is a 'learning' profession. The cross-roads that it faces is whether, like surgery which was long a craft, it will eventually build its therapeutics on a firm scientific foundation or whether it will persist in putting undue emphasis on technique."

"Although Dentistry's concern with the question of its professional status is a hopeful sign, its rather widespread fear of any fundamental educational experimentation is not so encouraging. A clear understanding of the actual position of dentistry as a profession is a prerequisite to the solution of its educational problems."

This was one of the most thoughtful and scholarly talks ever given before the society and evoked much discussion.

In the recent report of proceedings of the Nova Scotia Dental Association the name of Dr. J. H. Rice of Halifax, should have been included as a member of the Dental Board
W. C. O.

Major S. K. Oldfield, who practiced in Halifax before the war, has returned from overseas. "Skip" joined up in July, 1940 and in May of the following year married Miss Catherine Woolsey of Ottawa. He proceeded to England with No. 5 Coy, C.D.C. in September, 1941. He was attached to No. 15 Cdn. General Hosp. and saw service in North Africa and Italy with that unit. Invalided back to England in August, 1943, he was finally returned to Canada October, 1944. Major Oldfield is now in command of the Dental Clinic at Debert, N.S. and is tackling that job with his usual persistence and good humour.

QUEBEC:**Montreal Dental Club**

The annual meeting of this Club took place at the Mount Stephen Club on December 17. The President, Dr. Reginald Winn, gave his report in which he reviewed the activities of the Club during his term of office. The following officers were elected for 1945-1946: Honorary President, Dr. Reginald Winn; President, Dr. W. S. Swetnam; President-elect, Dr. Arnold Mitchell; Treasurer, Dr. R. B. Bell; Secretary, Dr. L. S. Burton.

Dr. M. L. Donigan, Chairman of the Fall Clinic reported on the success of the past clinic. He said that the outside attendance was the largest in the history of our Fall Clinics. It was suggested that a greater number of clinicians and clinics be organized in order to give a larger and better choice for those attending the clinics. As a token of appreciation, a beautiful leather travelling bag was presented to Dr. Donigan.

President Dr. R. Winn made an appeal at last month's meeting for volunteers to do dental work at the Griffin Town Boy's Club. He was pleased to report that six men had volunteered to give their services free.

In conclusion, a toast was given to the boys of the Club who were serving with the armed forces Overseas.

Dental Service Planned for all Country Health Units

It is the Duplessis Government's intention to set up a special dental service in every country health unit throughout the province, according to Hon. J. H. A. Paquette, Quebec's Minister of Health and Social Welfare, in a public address he broadcast December 17 under the auspices of the College of Dental Surgeons of the Province of Quebec.

The Minister explained that such a project would have to be realized gradually, however, and that the plan would be carried out progressively as the necessary money became available for the purpose.—Quebec Chronic Telegraph.

BRITISH COLUMBIA:**Vancouver Dental Society**

The January dinner meeting of this Society was held on January 9, 1945 in the Hotel

Vancouver. The chair was occupied by Dr. N. H. Scott.

The Guest Speaker of the evening was Dr. R. M. Erwin of Portland, Oregon. His Subject was Childrens' Dentistry. Dr. Erwin who is the Secretary of the American Society of Dentistry for Children, a graduate of Forsyth Dental Clinic, and an Instructor at North Pacific College on Childrens' Dentistry, has had considerable experience in dealing with preventive dentistry for children.

The subject of Childrens' Dentistry proved of great interest to the large number of members present.

On the agenda for the evening was the question of the rehabilitation of female members discharged from the Armed Services, and it was recommended that Dr. Pallen obtain any information he could with regard to this matter, from the members in the other provinces, on his way East.

Reports were also heard from the Diagnosis and Prosthetics Study Clubs as well as a report from the Council of the College of Dental Surgeons.

Dr. R. C. Tully of Langley Prairie, B.C., who is a graduate of the University of Toronto, was unanimously elected into membership.

SASKATCHEWAN:**Moose Jaw Dental Society**

The officers of this Society for the present year are: President, Dr. W. J. McCauley; Vice-President, Dr. R. E. Wyatt; Sec.-Treas., Dr. L. W. Gemmell.

The dentists of Moose Jaw are to be commended for their cooperation in maintaining the Public School Dental Service. When Dr. Chagwin joined the armed services and the city was unable to secure the services of a dentist, the dentists as a body agreed to take their allotted share of time to attend to this important service. Under the present economic conditions, they are making a sacrifice for the welfare of the less fortunate.

Saskatoon Dental Society

This Society reports a very enjoyable evening with Dr. Lorne Connell as the guest speaker. Dr. Connell is the President of the Saskatchewan Dental Council. He re-

viewed the many activities of the Council for the past year and discussed at length some of the problems confronting the profession in the province and elsewhere.

ALBERTA:

Dental Society Meeting at Edmonton

A record gathering of 47 including Society members and those of the Dental Corps turned out January 12 to honour Dr. R. R. McIntyre of Calgary, President of the Alberta Dental Association and Dr. Grattan Roberts of Edmonton. The meeting was preceded by dinner at 6:30 p.m. in the elaborately arranged drawing room of the MacDonald Hotel. Dr. C. H. Lipsey, President, was in the chair.

"Orthodontics for the General Practitioner", the subject of Dr. McIntyre's address proved to be of great interest which was manifested by the interest shown during his talk as well as the discussion following. The speaker outlined some of the responsibilities of the general practitioner to this phase of dentistry and by means of charts and models exemplified them. He claimed that it was necessary that the dentist must recognize these early irregularities and if unable to give the proper treatment, they must be directed into the proper hands. Several of the simpler irregularities were elaborated upon, which covered

diagnosis, treatment and prognosis. A point stressed by the speaker was the all too common condition of disto-occlusion which manifests itself about the time of the eruption of the 6 year molar.

This meeting was of unusual interest in that a "Life Membership" was bestowed on Dr. Grattan Roberts, a practitioner of 35 years. A very close friend Dr. R. A. Rooney, President of the Canadian Dental Association, made the presentation. In doing this, Dr. Rooney outlined his professional and social experiences with Dr. Roberts. He stressed the many fine personal qualities which permeated his professional life and also remarked on the fine, consistent type of Dentistry which he always took a pride in doing. Dr. Roberts was the first President of the Edmonton Dental Society and has always taken a keen interest in its welfare. In replying, Dr. Roberts referred to the pleasure he had had in practising in Edmonton and the good feeling which existed here throughout the profession. Dr. Roberts believed we should have a "hobby", that we should prepare ourselves physically, mentally, and spiritually for the future and above all we should know when to quit practising.

Dr. W. S. Hamilton, Dean of Dentistry, University of Alberta, cited some experiences he was having in the use of penicillin.—J. C. W.

EMPIRE NEWS

GREAT BRITAIN:

The Position of the Dentist in the Public Dental Service

Except from Interim Report of the Interdepartmental Committee on Dentistry

It is of very great importance that dentists working in the public dental services should have cause for satisfaction and pride in their work; the detailed conditions of service are a matter for negotiation between the Government and the profession. There are certain principles, however, which we think are fundamental. In the first place, there should be no compulsion on any dentist to enter the public service; if he does so it must be of his own free will and he must be at liberty to leave it at any time should he so desire. Secondly, any dentist should be free to

engage either whole-time or part-time in the public dental service and in any branch of the service in which there is opportunity to serve. Thirdly, the patient must have free choice of dentist and the liberty to alter his choice if he so desires. In particular, we would emphasize that our proposals are not designed or intended to interfere with the free right of everybody to seek his dental advice and care through private arrangements and by private fee, if he for any reason wishes to do so, or with the free right—which is necessarily complementary to this—of any dentist to elect to practise privately for the whole or part of his time, if he so prefers. Our object is a service equally available to all, but not compulsorily imposed upon any.—Br. D. Jour. Dec. 1, 1944.

GENERAL NEWS

Medical Care For All

A group of 29 physicians, economists and administrators, organized as the Health Program Conference, have come forward with a new nation-wide health and medical care program. Details appear in a report published by the Committee on Research in Medical Economics.

All or almost all of the population should be covered by the Medical care system, these planners believe. Money for supporting it should come through contributory insurance required by law. It should be levied and collected from individuals and employers by the federal government. Taxation may be necessary to establish hospitals, medical centres and similar facilities and to pay for medical care for the indigent.

Administration of the program, however, should be handled locally, according to the proposed plan.

Policies should be determined by groups representing both the public and the medical profession. Public representation should cover the entire population, not any one class or organization.

Freedom of patients to choose and to change doctors and hospitals and of physicians to accept or refuse individual patients is provided.

Group practice is favoured as being a most economical way of providing the best medical care. Health centres where the health department and preventive medical activities, the doctors, the hospital, and diagnostic laboratories and other facilities would all be together seem to be favoured.

Voluntary agencies and health insurance plans already in operation, such as the Blue Cross, might be drawn into the nation-wide program and carry on their functions within it.

Three methods of paying physicians should be recognized: salary, capitation and, under certain circumstances, fee-for-service. The latter method is called "the most open to abuse by patients and physicians" and the most costly to administer. It should be discouraged, the 29 planners believe.

Compensation to physicians should be adequate in terms of annual income and in consideration of professional incomes usual among physicians of comparable ages, special-

ties and types of community. It should be commensurate with the physician's skill, experience and responsibility. Methods of payment should be such as to stimulate competition among physicians on a professional basis and discourage it on a financial basis. The method of payment should be determined locally by the physicians in a community.

From: Science News Letter, December 16 1944, per A.D.A. Release.

Civilian Dental Consultants

The Dental Division of The Surgeon General's Office has been considering the appointment of a number of nationally known dental practitioners as civilian dental consultants, to assist the Army Dental Corps. Major General Kirk, The Surgeon General, has approved the plan. The dentists who are in the process of being appointed will be designated in the fields of oral surgery and prosthetics. While operative dentistry and periodontics are equally as important as the subjects selected, the major problems of the Dental Corps have been associated with oral surgery and prosthetics.

The civilian consultants, who under contract with the War Department will be ordered to duty for one or more days at a time, will observe the activities and functions of the oral surgical or prosthetic sections and recommend certain modifications in procedure whereby the respective services may be improved and made more efficient. The consultants will give demonstrations and lectures as they may deem necessary. All instruction is to be consistent with the over-all Army policies and the facilities at hand. Comparatively few of the country's outstanding oral surgeons and prosthodontists will be afforded appointments, since the selection is limited in number and within certain geographical limits of the United States.—Bulletin of the U.S. Army Medical Department, October 9, 1944—per D. a Digest of Practice.

A.D.A. Observations

At the Chicago meeting, the Board of Trustees authorized a new salary contract with the Business Manager of \$10,000 for the

first year, \$11,000 for the second year and \$12,000 for the third year.

The Board of Trustees authorized employment of Harold Hillenbrand as Editor, effective January 1st, 1945, at \$10,000 for the first year, \$11,000 for the second year and \$12,000 for the third year.

The Board of Trustees (majority) recommended employment of a new General Secretary at a salary of \$8,000 for the first year, \$9,000 for the second year and \$10,000 for the third year.

The Board of Trustees recommended employment of Pierce Anthony as Editor Emeritus at a salary, for one year, of \$3,000.

The House approved an additional \$2,000 to be added to the salary for Dr. Anthony with request for a suitable recommendation to be presented to the House in 1945 to care for Dr. Anthony in a more appropriate fashion.

The House of Delegates accepted the Minority report from the Board and re-elected Dr. Pinney as General Secretary, for two years—without indicating the salary. His salary has been \$8,000 per year.—Texas D. Jour. Jan. 1945.

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**Statement of Hon. James E. Murray,
United States Senator from Montana, on
the Introduction of a Bill to Establish
a National Institute of Dental Research.**

Washington, D.C.,
January 10, 1945

I have today introduced in the Senate of the United States a bill to provide for a dental research institute in the United States Public Health Service.

My bill proposes that there should be established a national Institute of Dental Research, as a division of the National Institute of Health in the United States Public Health Service. The dental research that is already being done by the Public Health Service and other agencies, public or private, would be greatly increased under arrangements that assure coordination of the new and the old activities.

The Surgeon General of the Public Health Service is to direct the new institute and its work. To assist him, there would be created a national Advisory Dental Research Council, to include—in addition to the Surgeon General who will be chairman—six appointed members

—at least four of whom shall be dentists—to be selected from leading authorities.

The institute is to conduct and aid research on the cause, prevention and methods of diagnosis and treatment of dental diseases and conditions; to promote coordination of dental research; to provide fellowships in the institute and make grants-in-aid to universities and other institutions; to secure the consultation services of other experts; and to cooperate with State health agencies.

The institute is authorized to receive gifts from private sources.

The Surgeon General is required to make a full report to Congress each year.

To give effect to this program, the bill proposes that Congress should authorize appropriations, up to a maximum of \$1,000,000, to erect and equip a suitable building after the war; and up to a maximum of \$730,000 a year to provide a budget to carry out the program.

Dental diseases and conditions, in damage to health and working power, now cost untold amounts every year, amounts which are probably to be measured in billions of dollars, to say nothing of human suffering and unhappiness. In addition, the people of the United States spend several hundred million dollars a year on dental services, even though they are receiving only a minor part of the dental care they really need. It is, therefore, good economy and good sense that we should invest an amount equal to a very small fraction of these sums in learning more about the causes of dental diseases, in inventing new and better methods of treatment, and in improving the efficiency and economy of dental care.

This is a bill proposing that we should make a good investment in the future health of the people. It should be promptly enacted by Congress.

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Vitamins

Says H. L. Kretschmer, President of the American Medical Association, according to press reports: "The people of the United States are spending a quarter of a billion dollars annually on vitamin pills and tablets. This means that every morning hundreds of thousands of potent little pellets travel eagerly down as many anxious esophagi into the systems of people, most of whom do not need them." Evidently it keeps them happy.—Professor A. E. Murneck in Science.

IN MEMORIAM

Edwin W. Mounteer of Regina, Saskatchewan, aged 56, died January 18. He was graduated from the Royal College of Dental Surgeons in 1915. He practised in Radville prior to joining the Dental Corps in the last war.

He was well known in sporting circles in Regina being a former active member of the Regina Boat Club. He was a member of the Kiwanis Club for 17 years. He was also a member of the Council of the College of Dental Surgeons of Saskatchewan.

He was Vice-President of the War Auxiliary Services, 1940-44, and Chairman of Finance for the same period. He was a member of the Board of the Victorian Order of Nurses and also a prominent Anglican.

Dr. Mounteer is survived by his widow and one daughter.

Major Frank Boyaner, D.M.D., of Saint John, New Brunswick, aged 47, died, according to reports, in Brighton, England, early in January. He was a member of the Canadian Dental Corps and served with the Corps in Malta, throughout the campaign in Sicily and a year in Italy. He returned to England a few months ago.

He was graduated in Dentistry at Tufts Dental College, Boston. He was a member of the Saint John Flying Club, the Saint John Skating Association, and the Ridgewood Golf Club. He was a keen hunter and angler and was interested in the affairs of the Maritime Intermediate Hockey League.

He was a member of the Alpha and Omega Club, the Shaarei-Zedek congregation and the Young Men's Hebrew Association.

—Saint John Times-Globe

H. G. Dunbar of Sexsmith, Alberta, aged 67, died in December.

Following graduation, he practised in New Glasgow, Nova Scotia, for about fifteen years before moving to the west. In his younger days he was well known as a sportsman; rifle shooting, curling, hunting, and fishing being his favourite sports.

Dr. Dunbar is survived by his widow, two sons and one brother.

George Sidney Mills of Macleod, Alberta, aged 79, died December 17. He was graduated from the Pennsylvania Dental College in 1902, and in 1904 moved to Calgary and later moved to Macleod.

Dr. Mills is survived by his widow and one son, Captain G. Durwood Mills, now in Belgium, who has been overseas for the past four years.

Wilfred Clarence Cumming Coristine, aged 48, died from a heart attack, January 16. He had been in his office as usual during the day. He interrupted his course at the University to enlist in the first Great War and went overseas in 1916 with the 10th Field Ambulance Medical Corps and returned in 1919. He was graduated from the Royal College of Dental Surgeons of Ontario in 1923, following which he established his practice in Birch Cliff.

He was a member of the Scarboro Board of Trade, the Scarboro Lion's Club, the Masonic Order, the Academy of Dentistry, and the First United Church, Birch Cliff, where he was a former treasurer.

Dr. Coristine is survived by his widow, two daughters, and his parents, also two brothers and three sisters.

. . . SECTION FRANÇAISE . . .

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EDITORIAL

Formation classique ou scientifique

J'ai été particulièrement sensible à la confiance que me firent, en 1941, les organisateurs du Congrès de Québec en me chargeant de dire aux congressistes ce que devrait être demain l'enseignement de la chirurgie dentaire. Parce que je croyais définitivement réglée la question de l'admission à cette étude, je ne fis que l'effleurer pour traiter plus spécialement de la formation professionnelle. Or il arrive que quarante ans après d'autres, décidés à revenir maintenant sur leurs pas, on veut répéter chez nous l'expérience qui a fait faillite partout.

Unanimité et division.

Lorsqu'il s'agit de savoir quel sorte de professionnels on désire pour la chirurgie dentaire, c'est l'unanimité parfaite. Il nous faut des travailleurs intelligents, cultivés, instruits, honnêtes, capables de soulager les misères humaines et de guider la société dans les sentiers d'une civilisation plus heureuse d'ordre et de paix. Mais lorsqu'il s'agit de décider quels moyens il faut prendre pour former de tels sujets, on ne s'entend plus. Chacun propose une méthode conforme à sa conception et à ses connaissances. Vous voyez d'ici quel imbroglio quand nous savons que les plus remuants ne doutent de rien tant leur érudition n'a d'autre source que des oui-dire.

D'un autre côté tous les érudits qui ont en connaissance de cause traité de la formation de la jeunesse ont répété cette phrase de Montaigne: "Je voudrais qu'on fut soigneux de luy choisir un conducteur qui eut plutost la teste bien faicte que bien pleine" Il semble bien que cette formule ait rencontré l'assentiment des vrais éducateurs, car tous ceux qui s'occupent de pédagogie l'ont devant les yeux comme but à atteindre.

La question serait donc de savoir quelle discipline est la plus apte à éduquer la jeunesse, car tous les maîtres ont la prétention de former leurs élèves et tous n'entendent pas suivre le même méthode. De là ces conflits qui s'élèvent périodiquement sous l'influence de mouvements politiques ou sociaux, dirigés la plupart du temps par des hommes arrivés qui n'ont en la matière aucune compétence et ne voient dans la vie qu'un seul but utile. (1) C'est que leur propre formation est trop superficielle ou viciée par quelque défaut de caractère. Malheureusement ils sont plus nombreux qu'on ne le pense, et voulez-vous les reconnaître? Rien de plus facile. Ils sont tous des admirateurs de celui qui vient de toucher une fortune, fut-il le plus ignare de son entourage et ont l'air de nous répéter à tout propos: "ce qui compte après tout c'est l'argent". S'ils arrivent eux-mêmes quelque part, une seule chose les préoccupe: la satisfaction égoïste de leurs ambitions, celle de leur famille ou de leur parti et naturellement veulent organiser la société selon leur conception.

Chez les dentistes.

Ne soyons pas surpris de trouver chez nous un certain nombre de praticiens victimes des éternels dénigreurs de ceux à qui nous devons notre existence comme peuple. Il nous faut payer trente ou quarante années de déformation systématique par des industriels de l'enseignement. Grâce aux progrès de la médecine au siècle dernier, s'ouvrait aux jeunes une carrière nouvelle possédant par elle même tous les caractères de noblesse des professions libérales. Pour la pratiquer convenablement, il fallait être un homme de science et un artiste doué de la dextérité manuelle d'un artisan. A-t-on eu la précaution nécessaire de n'y admettre que des jeunes susceptibles par leur formation de devenir des hommes de science et des artistes? Dieu sait le contraire et beaucoup d'hommes aussi, n'insistons pas sur ce pénible chapitre. Pourquoi s'étonner si quelques-uns de ces professionnels ne peuvent rien comprendre au problème actuel de l'éducation. Après des études classiques abandonnées en cours de route et quelquefois même dès le début, un grand nombre furent acceptés dans une institution où seule l'élite aurait dû être admise. Est-il étonnant que beaucoup d'entre eux, pourtant fort intelligents, de par leur parchemin se croient en possession de toutes les connaissances et de toute l'expérience des esprits cultivés? S'étonne-t-on de trouver des ronces et des chardons sur des sols incultes malgré leur grande fertilité?

Assurément non, tout s'explique. Sont-ils moins estimables pour cela? Jeunes encore ils n'étaient pas maîtres de leur destinée et personne n'a le droit de leur en faire un crime. Au contraire, ils auront encore plus de droit à notre estime si à cause de leur bon sens naturel ils ne s'obstinent pas à vouloir aux autres le mal qu'on leur a fait. Je suis même convaincu que bon nombre d'entre eux ne permettront jamais à leur fils de s'engager dans les raccourcis qu'ils ont suivis. De ce fait, je pourrais chez les dentistes citer plusieurs témoignages. Preuve de ce que j'ai déjà dit. S'ils n'ont pas la culture qu'ils aimeraient avoir, ils ont tout de même le bon sens de la regretter et de l'exiger pour les leurs.

Quelques autres malheureusement sont trop fiers pour s'avouer qu'il leur manque quelque chose car, ils ont eu des succès dans la vie. Ils n'en ont jamais cherché la cause, mais ils ont réussi, donc ils avaient tout ce qu'il fallait!!

(1) Certains maîtres de l'enseignement primaire, admirables dans leur cadre, n'ont pas réalisé qu'ils obéissent à la masse plutôt qu'il ne la dirige et qu'éventuellement ils se font inconsciemment les complices des ennemis de notre race en dépit d'un doctorat acquis longtemps après avoir passé l'âge de la formation. Ne seraient-ils pas des érudits plutôt que des cultivés.

C'est tout de même curieux que ces mêmes gens soient les protagonistes de programmes dont ils ne possèdent aucune des matières enseignées parce qu'ils ne les ont jamais étudiées. Quels motifs ont-ils de réclamer certaines réformes? Sur quoi se basent-ils? Sur des oui-dire, ils n'ont jamais enseigné ou fait aucune étude classique. Faciles à éblouir parce que superficiels et plus pris par la politique que par les besoins de la société, ils n'hésitent pas à épauler les mouvements subversifs qu'on voit surgir chroniquement. Ont-ils l'idée de nuire? Point du tout, ils ne voient pas le mal dont ils se font les complices et se disent: il nous faut des savants, formons-en.

Ce qu'ils proposent.

En extase devant ce qu'ils ont vu ailleurs, ils ne rêvent plus que science, biologie, chimie, mathématiques, technologie, etc. etc., et voilà ce qu'ils réclament pour nos jeunes. Vite, il faut forcer nos collègues à se reformer et à nous donner tout cela. Magnifique, mais ces Messieurs ont oublié de se demander ce que c'est qu'un savant. Au surplus, ils ignorent toutes les réactions du monde français, anglais et étatsunien, les rapports des multiples enquêtes menées partout et particulièrement chez nos voisins sur la faillite de l'éducation dite technique et scientifique. Personne n'y prétend que les sciences doivent être négligées mais, tous les éducateurs sérieux des Etats-Unis, de l'Ontario et de partout sont d'accord pour proclamer que notre civilisation a fait fausse route, que c'est bien beau d'essayer de former des hommes par les sciences, mais qu'il serait bien plus utile à la société d'avoir des hommes d'abord. Ils deviendront ensuite des hommes de science si l'on veut, mais ils seront humains avant tout. Où les progrès matériels de notre siècle nous ont-ils conduits? Les peuples de l'univers sont-ils plus heureux ou plus malheureux? Ce progrès est l'ennemi du véritable progrès. Il pourrait exister quand même, mais à la condition d'être corollaire du progrès de l'homme d'abord. Seule la science de la matière a progressé. L'homme ne se connaît plus et c'est la déchéance malgré le luxe et la richesse.

George Claude déclarait il n'y a pas si longtemps, que la science avait remporté sur la matière d'innombrables et éclatantes victoires, mais qu'en retour celle-ci a bien pris sa revanche puisque l'humanité déformée a retourné contre elle-même les inventions de son cerveau. Les ingénieurs de notre continent étaient pourtant de farouches partisans de la formation purement scientifique et pourtant écoutez ce qu'en disait récemment l'un d'entre eux (2). L'auteur de l'article constate que malheureusement le temps réservé aux études spéciales du génie est trop restreint pour y ajouter d'autres matières et pourtant: "Men very able men with school background which is necessarily limited, go direct into specialized scientific and technical courses, and continue in this atmosphere during their whole period of university education." Il reconnaît à la science une certaine vertu formatrice qui peut développer l'imagination (soit dit en passant que les humanités classiques recherchent justement l'effet contraire, c'est-à-dire soustraire l'élève aux effets de l'imagination pour le rappeler à la réalité), cultive l'objectivité, le respect de la vérité etc., "But it cannot be said to concern itself with human being The engineer must do more, for his work is of value only insofar as it contributes to human aims." Après avoir dit ses espérances sur le rôle des ingénieurs après la guerre, il ajoute: "Blended with the understanding that comes from human studies, these qualities will do great service in a world where human needs will be the criterion in all plans for " . . . etc. etc.

Alors qu'il cherche encore, ne pourrions nous pas lui dire puisqu'il en est déjà convaincu: les canadiens-français ont une vieille formule qu'ils n'ont pas inventée.

(2) R. C. Wallace, C.M.G., L.L.D., Hon. M.E.I.C.
Principal Queen's University, Kingston, Ont.
Engineering Journal. Déc. 1944.

Que vos écoles de génie exigent donc le cours classique avant le cours universitaire et un si grand nombre des vôtres, comme nous en connaissons personnellement, n'auront pas à regretter publiquement les deux ou trois ans qu'ils estimaient économiser en abrégant leur préparation ou en sautant du primaire à l'universitaire.

Les peuples dont trop de chefs ont été cultivés dans la matière abrutissent les coeurs. Ils sont enclins à se replier vers les appétits les plus bas. Ils ne peuvent plus, ne sentent plus le besoin de se relever au dessus des animaux. N'en connaissons nous pas, et même des nôtres dont la vie n'a jamais connu d'autre idéal que les jouissances matérielles, si bien que tout leur zèle, leurs désirs et leurs ambitions sont concentrés sur leur santé, leur fortune et comme malédiction finale, toute la sensibilité de leur être, leurs amours, leurs émotions, s'épuisent au profit des animaux chats ou chiens. Est-il surprenant qu'en certains pays on voit si fréquemment des êtres humains atteints d'une aberration mentale telle, qu'ils vont jusqu'à laisser par testament des fortunes colossales à des chiens, à leur aménager des cimetières où l'on érige à la bête de somptueux monuments. Des hommes de bon sens de plus en plus nombreux protestent avec véhémence, mais sans succès. La masse est encore trop imprégnée du matérialisme inconscient où l'a plongée sa culture trop exclusivement scientifique. Je n'entends pas généraliser jusqu'à prétendre que tous en sont rendus là, mais en allant d'une extrémité à l'autre on peut se faire une idée assez juste des résultats d'une telle éducation.

D'ailleurs Alexis Carrel, ce grand savant français qui a eu l'occasion d'étudier de près cette méthode moderne de formation n'aboutit pas à des conclusions plus optimistes. Voyons plutôt quelques textes tirés de *L'Homme et l'Inconnu* par M. J. Foisset dans une revue, *La Phalange de Haiti*. Les sciences de la matière, constate M. Carrel, ont fait d'immenses progrès. Les applications des découvertes scientifiques ont transformé notre monde matériel; transformations qui ont exercé sur nous une influence profonde et néfaste, et il cite: "L'homme devrait être la mesure de tout. En fait, il est un étranger, dans le monde qu'il a créé. Il n'a pas su organiser ce monde pour lui parce qu'il ne possédait pas une connaissance positive de sa propre nature. L'énorme avance prise par les sciences des choses inanimées sur celles des êtres vivants est donc un des événements les plus tragiques de l'histoire de l'humanité. Le milieu construit par notre intelligence et nos inventions n'est ajusté ni à notre taille ni à notre forme. Il ne nous va pas. Nous y sommes malheureux. Nous y dégrènerons moralement et mentalement".

Le Dr Carrel, dit M. Foisset, constate que la science de la vie et de l'homme est en retard sur les sciences de la matière inanimée. Nous ignorons l'homme et il cite encore: "Il semble qu'en l'absence de l'armature morale l'intelligence elle-même s'affaisse. C'est peut-être pour cette raison que cette faculté jadis si caractéristique en France a baissé de façon aussi manifeste en ce pays. Aux Etats Unis le niveau reste inférieur malgré la multiplication des écoles et des universités . . . Ce ne sont pas les sciences mécaniques physiques ou chimiques qui nous apporte la moralité, l'intelligence, la santé, l'équilibre nerveux, la sécurité et la paix . . . La vie naturelle exige un effort constant et varié. L'homme moderne y a substitué une oisiveté de tous ses systèmes organiques . . . En condamnant l'homme à vivre contre nature, la vie moderne le détraque. Aux Etats-Unis "les maladies mentales à elles seules sont plus nombreuses que toutes les autres maladies réunies". Plus loin, Carrel constate encore que ces maladies de l'esprit sont en rapport direct avec l'augmentation de la criminalité et que par malheur la science des maladies mentales et de la santé mentale n'est encore qu'au stage de la description. Et de conclure M. Foisset notre civilisation est donc inhumaine, elle ignore l'homme.

Qu'on me permette d'ajouter ici une réflexion que me faisait à Paris M. Brisson ministre des travailleurs intellectuels: "A force de nous américaniser on dirait que l'intelligence baisse en France, l'esprit chez nous ne produit presque plus rien de

durable . . . Il ne faudra pas être surpris si dans une ou deux décades les Américains prennent notre place dans le monde en adoptant pour eux nos vieilles méthodes de formation.

Quelles étaient donc ces vieilles méthodes qui ont donné à la France cette pléiade de bienfaiteurs de l'humanité, producteurs de tant d'œuvres impérissables dans les arts, les lettres les sciences? Est-ce à cause des ampoules d'Edison qu'on a appelé Paris la ville lumière?

La méthode qu'il nous faut.

Ne vous étonnez pas si je ne préconise pas une méthode particulière à la formation des futurs candidats à l'étude de la chirurgie dentaire. Faut-il revenir là-dessus: La Faculté des arts (nos collèges classiques) n'a pas pour but des formes des spécialistes et ne doit pas chercher à répondre aux désirs particuliers d'une Faculté; elle porte en elle-même sa fin particulière c'est-à-dire une formation générale utile et nécessaire à toutes les Facultés. Quant à l'enseignement particulier à chaque profession, que l'Université s'en charge, ce n'est pas l'affaire de l'enseignement secondaire.

L'enseignement de la chirurgie dentaire est l'objet d'une Faculté universitaire. Qu'elle continue donc d'exiger la formation que doit exiger une Université. Nous ne reviendrons pas là dessus croyant en avoir suffisamment dit dans notre premier article.

Ceux qui sont passé par nos collèges savent quelles sont ces méthodes classiques dont M. Brisson prévoyait la restriction. Quant à ceux dont les études classiques s'arrêtent à la syntaxe, ou à peu de distance de là, pourraient-ils pas nous dire quelle méthode de formation est la meilleure dans les institutions chinoises?

Chez les peuples occidentaux l'étude des humanités greco-latines, de l'histoire, de la littérature et de la philosophie converge invinciblement vers un même point. Science, histoire, littérature et philosophie ne s'apprennent pas sans remonter à la Grèce. Soyez assurés que ce n'est pas à cause des jouissances particulières que nous procurait au collègue l'étude du grec que nous raisonnons ainsi. Je l'admet volontiers c'est avec une joie indescriptible que nous aurions brûlé auteurs et dictionnaires au beau milieu de la cour. Ce sentiment chez les jeuns s'explique, tant l'effort constant répugne à cet âge. Mais aujourd'hui bénissons le criel d'y avoir un peu goûté quand nous voyons quel profit tant d'autres en ont tiré. Ne nous demandez pas quelle vertu le grec et le latin peuvent bien avoir pour former la jeunesse. Il nous faudrait écrire un gros volume et pour ce faire en lire des dizaines d'autres (3). Rappelons donc en quelques lignes seulement les avantages de cette culture.

Les langues latine et grecque.

On croira peut être que le latin et le grec n'ont aujourd'hui d'autre utilité que de servir d'instrument de gymnase propre à développer l'esprit des enfants. Rien de plus faux, mais admettons pour le moment que c'est un des utiles côtés de l'enseignement des langues. Entre 10 et 20 ans c'est le moment de la culture et non celui des récoltes pas même celui des semailles. C'est le temps d'apprendre à marcher avant de courir. Et ceux qui voudraient nous faire accepter certains cours primaires scientifiques agissent comme ce propriétaire de ferme qui donne ses ordres: Ne perdez pas votre temps à bouleverser ainse mon champ, ce qu'il me faut ce sont des légumes et du blé, semez-en donc tout de suite. Eh bien, non nous ne pouvons semer tout de suite. L'esprit de l'enfant est comme la terre; il faut que toutes ses facultés soient cultivées et pas seulement la mémoire. C'est par l'étude progressive des grammaires, des versions et des thèmes que le jeune assouplira son esprit intelligemment. Les langues sont l'expression de la pensée humaine et l'enfant peut comprendre un lan-

(3) Si l'on veut se renseigner sur ce point, M. Maurice Lebel vient de publier aux Editions Fides "L'Enseignement du grec". Il paraît que ça se lit comme un roman.

gage. Il n'y aura pas seulement sa mémoire qui travaillera. Il se formera des idées, aiguïsera son jugement, s'habitue à la précision. En somme il prendra l'habitude de penser plutôt que de sentir ou de s'imaginer, car les anciens accordaient peu de place à l'imagination et au sentiment même dans leur fiction. C'est par la fréquentation des grecs et des latins que l'enfant assouplit, ameublit et façonne son intelligence, acquiert la connaissance de l'homme et de sa civilisation. Ne l'oublions pas ce que nous sommes, nous le tenons des grecs et des latins.

Nous n'avons rien inventé; même les latins ont tout reçu de la Grèce. Ce sont eux qui par leurs conquêtes ont répandu sa civilisation, notre héritage et nos traditions, dans tout l'occident. Arts, sciences, littérature, philosophie et même les mathématiques nous viennent des grecs. Et l'on voudrait nous détacher de cette source de vie et d'humanisation.

S'il nous fallait maintenant parler de ce que les humanités greco-latines, outre la formation intellectuelle, peuvent nous procurer de connaissances dans les arts, les sciences, la littérature, la philosophie, la psychologie et la morale, nous n'en finirions plus. Ainsi en serait-il s'il fallait entreprendre de démontrer la nécessité pour nous canadiens-français, donc latins, de ne jamais abandonner les classiques anciens.

Une objection.

Mais, nous sommes aussi classiques que nos collègues, car comme eux nous enseignons du latin et du grec.

Pas très forte l'objection. Vous faites de l'instruction et du gavage, pas de la formation. C'est petit à petit que l'enfant moule son intelligence, acquiert une quantité de connaissances positives qu'il oubliera sans doute presque toutes, mais dont il gardera la substance toute sa vie. Comme le corps d'ailleurs rejette la majeure partie des produits alimentaires qu'il absorbe pour n'en conserver que les principes vitaux qu'il a transformés. Ce n'est pas trois ou quatre heures par semaines que vous donnez à une de ces langues pendant quatre ans; sans parler des éléments déjà vus. C'est du gavage intellectuel aussi néfaste à l'intelligence qu'il peut l'être à l'organisme. Vous enseignez un peu de latin à la manière anglaise à travers un tas de matières indigestes dont l'étude ne devrait être entreprise qu'à l'Université. C'est-à-dire quand le jeune homme a atteint une maturité intellectuelle suffisante pour en profiter. Quant au grec vous n'en faites pas du tout. Apprendre un certain nombre de racines est peine complètement perdue quand on n'a pas étudié la langue qui les a produites.

En terminant ne serait-il pas opportun de se rappeler que dans l'histoire de l'humanité, les peuples qui ont attiré vers eux le plus d'estime et d'admiration sont ceux dont le cerveau a été le plus productif pour l'humanité et non ceux qui par leur puissance matérielle ont su commercialiser et monnayer les inventions des autres au profit de leurs cartels. Si les Grecs ont été vaincu par les Romains, ils ont été bien vengés, car les vaincus ont civilisé le vainqueur comme à son tour l'Empire Romain écrasé par les barbares a civilisé l'Europe.

Seriez-vous de voir l'histoire se répéter bientôt?

Alcide Thibaut, D.D.S.

Un cas de pemphigus oculaire

par le DOCTEUR EMILE BLAIN, Ophthlalmologiste

Le pemphigus oculaire n'est pas une affection bien répandue, heureusement. Le seul cas que j'en aie vu est précisément celui que je rapporte ici.

Une femme de 42 ans, menant une vie fort aisée, consulte en juin 1941, pour une inflammation de l'oeil gauche. Cette personne, hystérectomisée deux ans plus tôt, a souffert précédemment de nombreux maux digestifs, et elle a dû suivre pendant plusieurs mois une diète sévère.

Il s'agit vraisemblablement d'une conjonctivite banale; mais la patiente dit souffrir beaucoup plus que le laissent croire les symptômes présents. Au même moment, à la suite de l'extraction de deux molaire supérieures du même côté, il persiste sur la gencive et la surface de la joue correspondantes, de petites érosions grisâtres, douloureuses et malodorantes. Less antiseptiques ordinaires n'améliorent aucunement l'oeil, et les rince-bouche alcalins n'ont aucun effet sur les lésions de la bouche. Un examen microscopique des sécrétions conjonctivales et des exsudats buccaux ne révèle rien de particulier.

En juillet, la malade qui n'a pas guéri depuis, se plaint d'une baisse de la vision du même oeil, de brûlure conjonctivale marquée, de sécheresse oculaire, et d'un affaïssement général, d'ailleurs évident.

L'oeil intéressé présente alors un peu de rougeur, une légère infiltration de la cornée profonde, et une acuité visuelle convenable. Les surfaces de la cornée et de la conjonctive sont lisses, et un nouvel examen des sécrétions oculaires reste négatif. Les ulcérations de la muqueuse buccale ont agrandi depuis le dernier examen, et fait à noter, la patiente qui est extrêmement soigneuse d'elle-même, accuse une haleine fétide.

Devant l'insuccès de la thérapeutique, la malade "boude la Faculté" pendant six semaines. Puis, se sentant déprimer, elle subit un examen général complet, une quadruple consultation entre médecins et, ophtalmologistes, et malgré tout, aucun diagnostic précis n'est porté. A ce moment, la langue et la muqueuse des joues sont parsemées de taches grisâtres, d'où un exsudat pseudo-membraneux se détache difficilement.

Les maux généraux augmentant, la dame est hospitalisée le 10 novembre. Et, quelques jours après, le diagnostic se précise lui-même, quand apparaissent sur le thorax d'abord, et sur tout le corps par la suite, les bulles séreuses caractéristiques du pemphigus.

L'oeil gauche, maintenant bien amélioré, ne présente plus d'autres particularités jusque vers la fin de la maladie.

L'affection suit son cours. Les bulles cutanées et muqueuses deviennent de plus en plus nombreuses et de plus en plus grandes, disparaissent par moments pour réapparaître plus denses. En mars suivant, malgré toutes les ressources déployées, la malade se cachectise rapidement. Toute la peau du corps n'est plus qu'une immense plaie douloureuse, et le 9 avril, la cliente succombe de néphrite.

Les auteurs nous disent que "le pemphigus oculaire, coïncidant avec une éruption de même nature sur la peau ou la muqueuse buccale, est caractérisé par le développement subit de grosses bulles soulevant l'épithélium conjonctival ou cornéen, laissant à leur suite des cicatrices ou des adhérences, et se reproduisant par poussées à des intervalles plus ou moins longs." (Morax)

Or, dans ce cas, il n'y a jamais eu de bulles visibles, ni dans la cornée, ni sur la conjonctive. Il n'y a pas eu davantage d'ulcérations oculaires apparentes, ni de cicatrices adhérentes.

En plus de la sensation de sécheresse et de brûlure locales, d'une légère baisse de vision, d'un petit oedème palpébral, et d'un peu de rougeur, le seul signe présent dans l'oeil a été la production tenace de grands filaments pseudo-membraneux, que la patiente enlevait elle-même. Les deux yeux n'ont jamais été pris en même temps. L'état général fut atteint dès le début. Mais le diagnostic ne s'est imposé que cinq mois après les premiers symptômes.

Tout a été essayé, en fait de traitement, et tout a échoué.

Vous le savez, la cause de l'infection est inconnue. On suppose bien des théories: toxicité, carence alimentaire, avitaminose, troubles trophiques nerveux, infection, déséquilibre endocrinien, etc. Mais ce sont des hypothèses encore mal définies.

Le traitement spécifique est également inconnu. On se console un peu d'avoir ignoré le diagnostic, en pensant que même si la nature de la maladie avait été établie dès le commencement, l'ophtalmologiste n'aurait pu, en aucune façon, entraver la marche des événements, et encore moins empêcher l'échéance fatale. Ce n'est pas une grosse consolation, mais c'est la seule.

En toute modestie, je vous sou mets cet échec éclatant. Qui sait si la publication de cette histoire n'atteindra pas quelque part un praticien capable de nous apporter un peu de lumière.

Question et Réponses

Question.—J'ai revu deux jeunes gens, ayant respectivement seize et vingt ans, et aux quels j'avais extrait à l'âge de huit ans, les quatre dents de six ans. Seules deux de celles-ci étaient fort cariées.

Le résultat me semble parfait au point de vue articulation.

Or je crois savoir, qu'il y a des avis fort partagés au sujet de cette intervention (extraction préventive des quatre dents de six ans, même lorsque celles-ci ne sont que légèrement atteintes par la carie). Ceci me semble plutôt un argument en faveur de l'intervention.

Où en est actuellement la question?

—D. à B.

REPONSE N° 1.—pg. 512 Nov. 1944.

REPONSE N° 2.—

Lorsque les avis sont partagés au sujet d'une intervention, on peut être à peu près sûr que cette question n'a pas été envisagée avec tout l'éclectisme voulu et que l'on cède à la tendance trop fréquente de systématiser. L'attitude à adopter vis-à-vis de la dent de six ans expose tout particulièrement cette mésaventure. Un résultat peut être parfait au point de vue articulation, mais défectueux au point de vue de l'harmonie dento-maxillaire et surtout de l'harmonie morpho-fonctionnelle du maxillaire lui-même chez l'individu considéré.

A mon sens, il faut partir de ce point de vue que toute extraction d'une dent définitive se traduit par un phénomène d'atrophie. Si l'intervention est absolument inévitable pour diverses raisons, telles que processus suppuratifs, foyers apicaux incurables, etc., il importe de réduire au minimum les conséquences de cette extraction au point de vue de l'évolution. Je ne puis mieux faire que de reproduire ici un résumé de l'excellente synthèse présentée aux dernières journées odonto-stomatologiques de Lille par notre confrère Soleil et qui rappelle lui-même la mise au point si précise d'Isard à savoir:

"L'extraction unilatérale crée l'asymétrie. L'extraction bilatérale mais à une seule arcade, provoque un arrêt de développement de la mâchoire correspondante. Enfin, l'extraction des quatre dents de six ans, préconisée par Harris, défendue par Andrieu, puis par Pietkiewicz" et, nous nous permettons de l'ajouter à nouveau exhumée par des auteurs allemands plus récemment comme méthode thérapeutique sociale (?), "était utilisée pour combattre les malpositions antérieures, l'âge conseillé étant 11 ans, juste avant l'éruption des deuxièmes molaires. Mais, comme le faisait déjà remarquer Galippe, on augmentait l'atréisie au lieu de la diminuer."

Autrement dit, dans le cas souligné par notre confrère D . . . on a bien réalisé une articulation satisfaisante au point de vue esthétique mais en harmonisant, si j'ose ainsi m'exprimer, le retard d'évolution aux deux maxillaires au point de vue de l'équilibre somatique de l'intéressé. Ce n'est donc point un résultat parfait.

L'âge auquel se pose le problème de l'extraction joue également un grand rôle, car le retentissement de l'atrophie sera d'autant plus marqué que l'intervention sera faite plus précocement.

Les auteurs français et anglais sont, en général, d'accord pour estimer qu'au point de vue orthodontique, la seule indication défendable est le bi-prognathisme maxillaire, communément appelé "profil de nègre", et, sous certaines réserves, certains cas de prognathisme mandibulaire.

Citons à nouveau Soleil dans cette conclusion, qu'il est préférable de conserver la dent de six ans et, si l'extraction est indiquée et inévitable, d'attendre si possible l'âge de 11 ans afin de limiter les risques de la déformation. Et combien Soleil a raison lorsqu'il ajoute: "Chaque fois qu'une extraction est devenue indiquée par suite de la carie avancée et de ses complications, pensons qu'un traitement simple exécuté très tôt aurait souvent permis de conserver la dent".

Il n'est pas mauvais de compléter cette conclusion en rappelant que lorsque l'extraction est inévitable pour des raisons thérapeutiques à un âge dangereux au point de vue de ses conséquences atrophiques, il reste la ressource si souvent négligée de dispositifs simples permettant de maintenir l'espace.

W. à B.

REPONSE N° 3.—

Il est difficile de juger sans avoir vu les modèles. Mais, en tout état de cause, on n'est autorisé à extraire que lorsque l'on s'est assuré par une radiographie de la présence des dents de sagesse. Car, même si on extrait à huit ans, ce qui est un âge évidemment favorable, le vide ne sera comblé que si, en plus de la distalisation de la seconde prémolaire, vous avez une mésialisation accusée de la dent de douze ans, complétée par la poussée de la dent de sagesse. Sinon, on risque d'avoir des diasthèmes et alors la poussée de la dent de sagesse peut faire basculer la dent de douze ans.

V. D. G., à B.

Acryliques

Questions et réponses

par MAURICE STERN, D.D.S.

Question—Y a-t-il une bonne méthode pratique pour fabriquer des coiffes?

Réponse.—Oui, une bonne préparation de l'épaulement avec des angles bien définis constitue la première condition.

Alors choisissez une bande de cuivre; ni trop étroite ni trop large, une qui pourra pénétrer librement sous le bord libre de la gencive. Festonnez-la soigneusement, et alors la bande en place (s'étendant sous le bord libre de la gencive), indiquez dessus tout le contour de la gencive en y gravant une ligne avec un instrument pointu, tel une curette. En plus gravez une ligne médiane sur le cinquième gingival de la bande de cuivre. Enlevez la bande et vous servant d'un disque à séparer, coupez un collet de trois m.m. de largeur en suivant le bord festonné du bout gingival de la bande. Ceci va vous donner un petit collet de cuivre de 3 m.m. de largeur. Il est déjà festonner pour s'ajuster sous le bord libre de la gencive.

Ensuite nettoyez votre petit collet en le trempant dans de la benzine et asséchez-le à l'air comprimé. Sur la surface externe du collet de cuivre fondez une mince couche de cire collante et placez le collet sur la dent en vous guidant sur la ligne gravée qui en marque le contour et celle qui indique le centre de la face antérieure. Vous avez de la sorte un champ clos pour y comprimer de la cire en vue d'une reproduction précise des lignes axio-gingivale et gingivo-marginale. Avec le pouce et l'index, comprimez de la cire à incrustation duement ramollie en vous dirigeant toujours vers la gencive labialement tout aussi bien que lingualement. A ce moment ne vous occupez pas du contour de la coiffe, car l'important est de bien comprimer la cire dans la zone encerclée de l'épaulement. Pour continuer, faites adhérer la dernière cire à la cire collante du collet du cuivre au moyen d'un explorateur chauffé. Refroidissez, séchez et ajoutez de la cire à incrustation fondue jusqu'à dépasser la forme de contour de la coiffe. Refroidissez de nouveau et sculptez votre dent selon les besoins du cas. Le moule sculpté est refroidi et devrait s'enlever facilement par le collet de cuivre avec un bon explorateur ou un grattoir. Ce patron devrait montrer des lignes d'angles bien définies et le collet de cuivre bien incorporé dans la cire. Ce modèle est investi avec son collet de cuivre. Une fois la cire fondue le collet de cuivre devrait bien s'enlever en le coupant à la ligne gravée du centre. L'espace occupé par la cire et le collet de cuivre est bourré d'acrylique.

Les questions devront être adressées au Dr Maurice Stern, 114-06 Queen's Boulevard, Forest Hills, New-York.



*Photo courtesy C.N.R.
Halstone courtesy Evangelical Publishers.*

A WINTER SCENE IN CANADA'S CAPITAL



DR. LORNE CONNELL

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SOME PROBLEMS IN CHILDREN'S DENTISTRY*

By WALTER T. McFALL, D.D.S., F.I.C.D., Asheville, N.C.

DENTISTRY adequately done, is vastly more than a means to a good livelihood—it is a real health service to a community and a nation. The health of every nation depends upon the consideration and attention given its children. There are manifold problems clamouring for solution in children's dentistry. Only those who study, work, and prepare themselves to like and win in their endeavours to serve children, can be happy and successful in this most important phase of our profession's responsibility to the public. If you, as a dentist, are looking for something easy and simple in life then shun and refuse to do your part for our finest patients—children. "There is nothing in all the world so important as children, nothing so interesting. If ever you wish to go in for philanthropy, if ever you wish to be of real use in the world, do something for children. If ever you yearn to be wise, study children." (David Starr Jordan).

During these days of stress and strain we must all be cognizant of what we owe to the pioneers in public health and preventive dentistry. Organized dentistry, organized medicine, and organized public health must work

together in unified cooperation to solve the problems confronting us. Special privileges which we now enjoy as professional men and women are likely to be called into serious question unless they always operate in the interest of public health and welfare; none of us can afford to forget this fact.

Prevention seems to be the paramount issue of our day, and we have learned that this prevention must begin with grandparents and prospective grandparents, if we are to save our people. A child impressed and taught in the formative growing years of life is our best means to this so much desired end of prevention, as it concerns disease, ignorance and poverty. The greatest problem of conservation relates not to industry or commerce, but to national vitality, and to obtain and maintain this precious requisite to success, we must of necessity begin by conserving the health of the child.

DIVISION OF PROBLEMS

Some of these problems in children's dentistry may be divided as follows:

(1) The public has not been educated to the importance of children's den-

*Presented before the Academy of Dentistry, Toronto, and Hamilton Dental Association, November, 1944.

tistry. Dentists must be better teachers. (2) The dentist has not done his part in the past twenty-five years due to his lack of undergraduate training, information, experience and ability. (3) The psychologists teach us that people are motivated by three basic emotions—Pride, Protection and Profit. The average dentist has been more afraid of the child patient than vice versa, because he did not know or understand so-called child management, operative methods and practices for children, and consequently he could not make either a living or a profit from his service for children. (4) Some dentists frankly do not like children, are emotionally not suited to serving children and many times do more harm than good by their attempts at children's dentistry. The members of all the professions of the healing arts are being sought out and looked to as leaders to guide, teach and materially help others. Progress is surely the law of the universe and the dentist trained and licensed who fails to do his rightful part for children, is doing more to hurt and hinder the glorious possibilities of dentistry and public health than is any other agency of which I know. In the care of the child lies the future of the nation. In the establishment of right habits in childhood, lies the secret of its happiness in later years. The dental profession in America excels in the science and arts of dental repair and cure. Unfortunately, however, entirely too little care and attention has been given to preventive dentistry and oral prophylaxis.

There is entirely too great a difference between preaching and practice in our profession as concerns the child patient. The laity is placed in such a quandary they do not know whom or what to believe, and often they are forced to doubt the efficacy of dentistry or its important place in the health of the child. Do we practice what we preach, do we insist upon the best of oral health services for our

families, selves, and those associated with us in this profession of dentistry?

ECONOMIC VIEWS

In nearly all the dental economics and practice management courses, children's dentistry has been listed as a leader in those services we are called upon to render which do not gain an equitable compensation for the dentists. It will be my effort to disabuse your minds of those troublesome and perplexing problems which have made children's dentistry a service our profession procrastinates about, apologizes for, and seems to feel does not pay.

It rather provokes professional men and women to admit that there is a business side to dentistry—but there very definitely is, since we have learned that the American public buys not what it needs but what it wants. How can the laity know you are interested in serving children unless your reception room and office tell and show them? I am not suggesting that you make your dental office a day nursery or your operating room a fairyland, but I am telling you that a child's corner, with a couple of small chairs, or a child's settee, appeals, attracts and encourages. The child feels more at home, is comfortable, and mother and family friends mention your children's nook more often than you realize. Books for children, goldfish aquarium, blackboard and chalk, wall paper pictures with a timely faddist connection, all proclaim your interest in and understanding of children.

Should I mention the all-importance of: (1) Never keep a child patient waiting more than twenty minutes. (2) Try to take children one after another, instead of alternating with adults. (3) As far as possible, know something about the child before he comes to your operating room—his age, hobby, name, and why he is coming to you. (4) Have children come early, regularly, and often, beginning

at two years of age. Allow them to accompany mother, to visit, instead of first coming as a patient. (5) Talk to a child in his language, use pictorial displays, charts and models. (6) Never embarrass a child before a third person. (7) Insist upon the child patient coming for a morning engagement, not late in the afternoon when exhausted. Try to make a friend and booster of the child instead of a knocker and frightened procrastinator of future visits to the dentist. Let us never forget that the children of today are the men and women of tomorrow, and just in proportion as children are taught, impressed and apply the great truths of our profession's knowledge, will they produce a more healthful and appreciative progeny out yonder in the future. We can never expect to gain and hold the confidence of a child until we merit and win the respect of his parents. The patient in children's dentistry is not only the child but also the parent.

OPERATING ROOM TECHNIQUE

Few children come to the operating room because they want to come. Most of them are brought or bribed by irate parents who give you the diagnosis and prognosis, "Doctor, Johnny has the toothache, we haven't had any sleep for two nights, we want the tooth pulled." The dental operating room, as the recreation room, is not planned or equipped for children. An operating stool, close to your dental chair, affords you an opportunity to be more comfortable, friendly, and acceptable to the child. A child's chair attachment to your adult dental chair will make the child comfortable and insure you a workable chair position. A board, two feet long, fifteen inches wide, an inch thick, well padded, or the usual chrome-leather barber chair seat, will assure your child patient of being comfortable, his little head being firmly held in the head rest and you a less tiresome and annoying experience of physical gymnastics at your

dental chair. In your operating room be patient, kind, encouraging but firm. One cannot be too careful of his body toilet when serving children. Use common sense in dealing with children. Do not irritate or provoke them, recall your own childhood and pet peeves. Always try to do something at each visit for the child's good health and your own compensation. Parents appreciate consideration, do as much as possible, but do not tire the patient with long engagements. Please tell children the truth, explain what you are doing, have the child assist you where possible by holding cotton rolls, keeping the water glass filled, etc. Prepare the simplest cavities first and leave the more painful cavities and extractions for the last, wherever possible. Have the bracket table instrumentaria completed, the operating room clean, pleasant and ready before the child is invited in. We should capitalize on our weaknesses, the fears our patients have or have heard about. The majority of children are afraid of blood, they need never see blood, for a red, warm, pleasant-tasting mouthwash, easily, quickly and effectively made from red cake colouring, cinnamon or peppermint water, becomes a selling point of pleasantness as the little patient rinses his mouth and has his attention called to how it looks like red lemonade and tastes better. All dentifrices and medications should be red, have the child see red from the time he first expectorates until he leaves your office and the fear of blood is forgotten. Call the parent's attention to all you are doing, explain in terms they understand, encourage and answer questions, and remember, "A picture is worth a thousand words," a model two thousand. Plainly tell mother you cannot make a thorough examination of her child's mouth until you have given a conscientious oral prophylaxis, that there are one hundred surfaces in a pre-school child's mouth to be examined, after six years of age, there

are more. Suggest to mother that it is impossible to see more than the tops of the teeth, only half an examination is possible without dental x-rays; that the child may have congenitally missing teeth, supernumerary teeth, impactions, or possible pus foci to retard growth, interfere with mastication or seriously affect growth and development. Give an engagement for an oral prophylaxis and examination, do your work right, expect and charge a fee, and be sure you give a professional service, as you should.

PROPHYLAXIS

In giving an oral prophylaxis for a child patient, explain to the child what you are going to do. Run the rubber cup on the child's finger or thumb, show how it cleans. It is rarely necessary to use a disclosing solution, but if one is used, confine it to small segments of the teeth, not all over the mouth and tongue. Colour your dentifrice red, be sure it does not fly into the child's eyes, and try to recall who is having the oral prophylaxis, the child, not you. I use short shank mandrels, only right or contra angle hand-pieces, due to the smallness of the mouth. Begin with the Robinson's cup shaped bristle brush, and only brush the occlusal surfaces. Next use the Young's rubber polishers on snap-on mandrels to avoid embarrassment and upset of the rubber cup coming off when the engine is in reverse. Scaling should not be done until later, the child may misunderstand the scaler's use and feel that you are trying to pull teeth as he hears the tartar break and his mind is expecting the worst of this dentist he has heard the older folks at times describe, when they had teeth pulled, then bled for hours and hours. After all tooth surfaces have been cleaned and polished, fillings smoothed and contoured, gums toned and stimulated, the tongue cleaned, then we are ready

for our clinical findings and recordings, for impressions and x-rays.

APPROACH TO PARENTS

When all the data is recorded, models trimmed, x-rays studied and mounted, we are ready to discuss the child's health and mouth with the parents—not before. The early recognition of beginning malocclusion is just as much a duty of the dentist as is the detection of caries, inflamed gums or abscessed teeth. An oral prophylaxis is not a professional service until the proper tooth brushing directions and home care have been understood and appreciated by the child and parents. The deleterious mouth habits, problems of feeding, any correlation of the mouth and body health should be discussed frankly with parents, not in the child's presence. The family should be emphatically told successful dental care for children is cooperative, they have an important part, never allow them to doubt it. We must impress parents relative to the importance of sending their children to the dentist early regularly and often. Make them understand we are helping the child's health and future welfare, that we will and can do our work efficiently only in proportion as the child will cooperate and help. Insist that children brush their teeth and mouth at least twice daily, night and morning preferably, and more if possible. Start a child caring for his teeth at two years of age, with parent's help, also have the young fellow visit the dentist at this time so that he may become acquainted with a person who should be a friend to him through life. The dentist must realize he is the one on trial before the parent and child. The parent and child should come to the office before they have to come. A good physician refers his child patient to the dentist who understands and can adequately serve children. The dental assistant should pleasantly and

effectively obtain all information, history, data, and helpful references possible. The dentist should see this information and history sheet before he meets the child or parents. The first appointment should be pleasant and free from all pain or discomfort, if at all possible.

RELIEVING TOOTHACHE

Next to extracting an abscessed tooth for a sickly child nothing is quite so upsetting as relieving the toothache. Dentists needlessly produce pain in their routine treatment of the toothache, usually never satisfactorily completing the removal of carious and infected tooth structure; usually an anodyne is sealed in the tooth with temporary stopping or cement, and too often the child does not return in a few days as the dentist advised, but waits several weeks until the tooth aches again, often when the pulp is decomposing and putrescent, too late to help. A much simpler, easier, and just as effective relief of pain is rendered by allowing the child to rinse his mouth vigorously several times, freeing and expelling the food debris in the aching tooth, drying the cavity, inserting a well fitting cotton pellet dampened in Fletcher's Carbolized Resin, a number four J. & J. cotton roll on the tooth takes up all excess medicament and seals the dressing in the tooth. Another effective treatment is to use a portion of the anodyne base, the formula I will give you later, softened in eugenol, which admirably stops the toothache and seals the tooth. Either of these treatments can be completed in three minutes, no pain caused by the use of burs or spoons, and the child is impressed with the relief without discomfort. Then, best of all, for his sake, future welfare and happiness, the treatment comes out in several days, forcing the child to return to the office, where and when he can be properly and satisfactorily served. Home treatment has assisted,

not hindered in this instance.

When a dentist better understands and appreciates the differences between deciduous and permanent teeth, the important classification of caries, which parents can comprehend, the necessary essentials in cavity preparation and sterilization, the use of an anodyne base, the proper matrices and their correct adaptation, filling materials and their finishing, then much of the grief and disgust will disappear and children's work will afford you not only a joy in your restorations, but a compensation, both financially and innately. There are many differences between deciduous and permanent tooth cavity preparation—the anatomy, the contact points, the gum line, the depth it is possible to prepare a cavity on the occlusal and proximal surfaces of deciduous teeth, matrix removal, and many other marked differences seriously affect the success of deciduous restorations. Too often parents do not understand what we are doing or attempting to do. They sometimes think we are capable of doing what we know we cannot, and once in a while they accuse us of having caused their child's abscessed teeth by our sincerest efforts.

In order for parents to understand and actually visualize the condition of their child's teeth, I prefer them to have this chart—

A CLASSIFICATION OF DENTAL DECAY FOR PARENTS

Class I—Any decay in the enamel.

Class II—Any decay 1 mm. deep in dentine.

Class III—Any decay 2 mm. deep in dentine.

Class IV—Any decay deeper than Class III that may or may not cause toothache.

Class V — Any definite pulp involvement.

This above classification of dental decay is predicated on the fact that the tooth has not been prepared. After

the oral prophylaxis the parents are invited to the dental chair and these carious conditions are pointed out in their child's mouth.

TREATMENT

Nothing is promised relative to a successful diagnosis and prognosis in the above classification beyond decay deeper than 1 mm. In those teeth where decay has penetrated deeper than Class II (1 mm. in dentine) dissected teeth are shown the parents and to their query, "Doctor, what can you do about this tooth?" I reply, "What can we do, for, surely you realize, we all have a part in this." Then I explain how we remove as much of the decay and infected material as possible, if soft decay goes into the pulp causing an exposure, it is better to learn it then and to devitalize or remove the tooth. If the decay has not penetrated the pulpal wall we explain how ammoniacal silver nitrate (Howe) may be helpfully and hopefully employed. In Class I and II classification of dental decay we dry the cavity, then apply the ammoniacal silver nitrate from thirty seconds to three minutes, dry cavity again, then apply eugenol for thirty seconds, not to reduce the ammoniacal silver nitrate but to give our patient's pulp a nice consideration from the thermal shock of the coolness of the alkaline ammoniacal silver solution. In Class III and IV dental decay classification, being very close to the pulp, we reverse the introduction of the ammoniacal silver nitrate and eugenol. Dry the cavity, then apply the eugenol on the pulpal wall for two to five minutes, again dry the cavity, then apply ammoniacal silver nitrate for three minutes. Medicaments only become effective when applied in dried cavities and on dried gum tissue.

When the decay is removed from a cavity and the most protective and dependable sterilizing agent known to present day dentistry, ammoniacal

silver nitrate, has been used, it becomes necessary to close that cavity with either a treatment or a filling. A treatment is a temporary measure, a filling is always a metallic restoration to restore the lost part of the defective tooth. Always explain this difference to parents, thereby avoiding embarrassment and misunderstandings. We all agree it is desirable to protect the pulp from thermal shock, from the ingress of caries or infection. Cements of various kinds have been used for years next to the pulpal wall. The liquid portion of cement contains phosphoric acid and this ingredient will and does irritate a dental pulp. In the process of inserting a cement base or pulp protection in the approximal surface of a deciduous tooth very little space is available. The dentist realizes he must insert a filling beside this cement base, he often mixes his cement too soft to assure ample working time because he is serving an unpredictable child patient, and after the cement sets up, it is trimmed and shaped until a very narrow portion remains, then when the filling is mixed and just before adaptation is begun, the dentist presumes to dry the cavity with a blast of air and out falls the thin cement base. This is about the average experience, and the filling is then inserted without a base or protecting substance between the pulp and metallic filling material. For years my experience was the same as many of yours, but for more than eighteen years I have not put cement next a pulpal wall, but instead, I use a sedative, non-conductor base. This base is always mixed, its ingredients are known, it is dependable and can be quickly inserted and the cavity margins cleaned. The mixing time is saved and I can insert several while you are mixing cement. This protective base, made by any druggist, does effectively what cement does not and can not do—protects the pulp, prevents thermal shock and is not af-

fectured by the expansive qualities of fillings. This base is:

Zinc Oxide—4 drams

Thymol Iodide—5 grains

Beechwood Creosote—12 drops

Oil of Cloves—12 drops

Anhydrous Lanum, a sufficient quantity to make a very, very, very stiff mixture. The mixture should be stiff enough to roll between your fingers without sticking or leaving a greasy smudge. If not this stiff, add more zinc oxide powder. The colour of this mixture is creamy white. It can be used under synthetic porcelain, alloy fillings, cement, and for treatments in aching teeth. It does not set as does cement but hardens and assumes a chalky appearance. It is carried to the sterilized, dry cavity on a sharp, smooth explorer point, only a quantity large enough to cover the pulpal wall is used. A tightly rolled, small cotton pledget in cotton pliers is used to smooth, tamp or pat the mixture to correct position. The same sharp explorer quickly and deftly clears and cleans all cavity walls. The filling material should be placed at once before the cavity is flooded by saliva.

THE MATRIX

The most important single factor to satisfactory insertion and maintenance of fillings is correct cavity preparation, but running a close second is the proper matrix. Children neither like the matrices which have a mechanical retainer, nor are they entirely suitable for deciduous teeth. On maxillary molars the retainers are too heavy and bulky, on mandibular molars there is too much tongue and cheek irritation, saliva seems to flow more freely, and in the process of removing the commonly employed matrices needing a mechanical retainer, most of the filling is marred and smeared. Several matrices are employed in filling deciduous teeth. They are all made from .002 inch thick

stainless steel in widths of 7/16, 4/16, and 3/16 inches. These matrices have the following advantages: (1) They have no mechanical retainer. (2) They may be left on the tooth over night. (3) They are all wedged at the gingiva. (4) They are removed buccolingually, or linguo-bucally, never gingivo-occlusally. (5) They look good, are effective, quick, and easier to adapt. By name and description they are: the T matrix, the simple tie on, the deep gingival tie on, the elliptical, the all around with tinners joint seal, the all around made by brad matrix pliers, the inter-proximal spring lock, and the Gordon White half-round. Burlew's celluloid Wedges inserted from the lingual embrasure interproximally are used for the gingival wedges. They are sanitary, durable and effective. Rubber dam is used to polish the gingival interproximal; smooth disks and assorted shapes of plug finishing burs are used to carve, polish and finish the occlusal and smooth surfaces. Amalgam is always polished three days to a week after insertion, being careful to finish from the enamel to the filling, never vice versa. Please remember to make broad preparations in the occluso-proximal areas of deciduous molars. A deciduous tooth may be prepared deeper occluso-gingivally in proportion to a permanent tooth. In the so-called dove-tail preparations of Black's Class II preparation, be sure your dove-tail is broad and bold, not a graceful swan's neck instead.

EXTRACTION

If children's dentistry is to succeed, a dentist must learn to extract deciduous teeth for a child with dispatch and without too much actual pain. If all dentists had gas oxygen machines to serve their child patients I would wholeheartedly recommend their use, provided the dentist is an informed anesthetist. A small percentage of general practitioners have gas oxygen

machines. I want all children adequately served, and surely times occur when one absolutely must employ a general or an analgesic agent. Because more ethyl chloride is given than any other analgesic agent, because it is adaptable for office, home, hospital, because I have successfully given thousands, taught dental students and dentists to do the same, because Dr. M. H. Jacobs and his staff at Forsyth Dental Infirmary in Boston have safely and sanely utilized this analgesic agent, I enthusiastically recommend it to you, and you, and you. It is my analgesic of choice, not used as a topical or refrigerant, but sprayed on gauze and inhaled through the mouth. I wish it were possible to explain the technique in detail, to demonstrate it for you—it should be done at each annual meeting. Every dentist can and should learn to use ethyl chloride, for I know of no better way to please parents and serve children pleasantly and effectively. The other method of anaesthetizing is of course locally. I use a 2% procaine solution with no epinephrin. As a surface anaesthetic I use either a solution of Benzocain, 30 grains, distilled water 1 dram, alcohol 2 drams, or I prefer Pontocaine Hydrochloride 2%, used on dried mucous membrane from thirty seconds to two minutes under pressure. Everywhere I am going to stick a needle, lance, probe, and scale deeply, I use this excellent surface anaesthetic. Half and half, Talbot's Iodoglycerole and alcohol is used to paint the field of operation one tooth anterior and one tooth posterior to the field of operation. A 2 cc. Fisher syringe with a 5/8ths inch straight needle, 28 gauge, or the midget size anesthetic syringe is used because I have a short finger grip and a stubby hand. The injection with procaine is made into the dental interproximal papillae in a mesio-apical and disto-apical direction on the buccal and lingual to the periosteum. After the last injection I test for anaesthesia

with a needle sharp, phenolized explorer. Being assured of anaesthesia I proceed to have the child assist me if forceps are employed, or if just the SSW. Fishtail Elevator 26B, I quickly elevate the tooth from the distal side forward. This elevator and one SSW. lower universal third molar forceps is my complete deciduous exodontia instrumentaria. Immediately after the extraction, the child's head is quickly forced over the cuspidor, and a twelve ounce glass of warm, red, pleasant-tasting mouthwash is forcefully and attentively used. When the water glass has been emptied, a large number 4 J. & J. cotton roll is opened and put over the socket, the mouth is held closed for five minutes, assuring a healthy blood clot, good tissue apposition, and a fine time for hysterical recovery. Printed home care directions are furnished, including a return engagement in a few days.

It is neither possible nor helpful to presume to cover all problems or every phase of children's dentistry. Unfortunately we do not always have time for a forum discussion or a question period—I wish we did. "The most important, and yet the least recognized, stabilizing factor for success in the practice of children's dentistry is understanding. The asset of a good reputation can almost be predetermined if the dentist possesses an understanding of himself, an understanding of the theoretical and operative procedures, an understanding of the child patient and then cultivates an understanding between the parents and himself. Naturally and logically, we must realize and always keep in mind that an understanding tends to build up a confidence in dentistry and dentists; and if we sincerely try to promote it, it will eventually cast its reflection upon our reputation and insure us against failure." Understanding and confidence help establish fees and collect accounts. Know your work before you sell it. You can't give what you don't have. I know of no other

phase of dental practice which affords a doctor of dental surgery a long time, self-respecting, satisfaction, compensation, security and happiness, as will children's dentistry.

WHEN I SERVE CHILDREN

When I am told that it takes a fifty-thousand dollar a year man to serve a client, or develop a coal mine, or put a corporation on its feet, I ask myself what is a man worth who takes that boy or girl of yours and through zealous care guides him to dental health, builds his body and bolsters his spirit to better face a world teeming with reality? When I, as a dentist, live up to that challenge as I do in serving the community's boys and girls, I am making a contribution far greater than the banker's accumulation of dollars, the lawyer's drawing of briefs, or the merchant's trafficking in goods. I am handling human souls, preserving, protecting and encouraging—boys and girls—the finest things on man's earth. No banker, no lawyer, no merchant holds his head higher than I. When I serve children I should be justly proud.

When I serve children I want my

imagination to look out upon dozens of youthful beings and see in them not so many mouths with teeth to be filled and occlusions to be corrected, with a pay check at the end of the services, but rather dozens of human possibilities, dozens of human challenges. Each child has something in him different from any other child in the world. In their service, and as their friend, I want to help each of my little patients to find that "something." When I serve children I should be very human.

When I serve children I want to feel as one American school teacher has felt, "I thank you, parent, for lending me your child today. All the years of love and care and training which you have given him have stood him in good stead in his work and in his play. I send him home to you to day, I hope a little stronger, a little taller, a little freer, a little nearer his goal. Lend him to me again tomorrow, I pray you. In my care of him I shall show my love." When I serve children, I should be wisely humble.

Yes, when I serve children, in any American dental practice today, I should be proud, human, humble, and I always will be happy and successful.

One of the first things a Freshman dental student is taught is how to make a set of dentures. "False teeth" is the name by which they are known the world over. We should reverse the order and teach in the beginning the importance of taking care of the primary teeth, and then the care of the permanent teeth, to the fullest of our knowledge, so that there will never be a need for "false teeth."

Could it be that this reverse order of education is the reason why so many dentists refuse to work for children? Could it be that their introduction into dentistry by the "false teeth route" has caused them to stay in "false teeth alley?" If so, dental educators can and must change this conception of dental practice.—Frank L. Lamons in Jour. of Dentistry for Children.

"No virtue is more universally accepted as a test of good character than trustworthiness."

The Forum

DENTAL HEALTH SECURITY FOR THE PEOPLE OF THE UNITED STATES

by The HONOURABLE JAMES E. MURRAY, Senator from Montana

Solutions suggested in paper in Ill. D. Jour., Jan., 1945

THERE are ways, which dentists themselves have suggested, to deal with at least part of the problem presented by adult dental needs. Let me mention a few of them briefly. Take the matter of the insufficiency of dentists. We cannot, overnight, double or triple the number of dentists. If means are devised which enable people to get the costs of dental care into their budgets, and effective demand as well as need for more dentists is demonstrated, in the course of time more young men and women will go into the dental profession. Meanwhile, I understand there are ways in which the dentist's time can be conserved so that he can serve more patients, while at the same time the unit costs of dental care may be reduced.

For example, it is reported that a dentist can increase his patient-load 25 per cent by using two chairs. By using one chair and an assistant, he can do a third more work. If he uses two chairs and an assistant, he can increase his patient load by 62 per cent. Since an assistant's time is much less valuable than a dentist's time, the cost will be less per patient, although the dentist himself will suffer no reduction in income. Indeed, it should enable him to increase it. If dentists can be guaranteed payment for all the work they do, is there any good reason why they should not increase their ability to take care of

more people in these ways? If there are doubts and difficulties, I assume you will study the proposals, evaluate them carefully, and devise sound procedures.

It has also been pointed out that costs could be lowered and the dentist's patient-load greatly increased by the training and extensive use of dental hygienists and dental technicians under the direction of dentists, to do many of the routine jobs which dentists now do. Greatly increased use of dental hygienists in various kinds of work has been recommended as another way of making more time available to the dentists for the care of adults.

Organization of dental practice through group practice in clinics is, I am told, a highly controversial subject. But I understand that this is being explored by professional groups as a practical means of increasing dental manpower and decreasing costs. What about the practicability of an enlarged system of school dental clinics, with maximum use of dental hygienists? I believe all these matters should be studied carefully and dispassionately.

I am anxious to see the dentists take the initiative in working out plans—not only for dental health education, not only for research, and not only for the care of children, but also for the care of adults to whatever extent can be made practical. The public

will not be satisfied with a program which will seem to them to ignore the needs of the adults or which would limit the care of children to an indigent or a low-income group.

I express the hope that plans can be devised to give at least a minimum amount of care to adults, with additional services provided as accumulated dental neglect is gradually taken care of. I suggest it may be possible to take advantage of better methods of organization, of extensive use of

auxiliary personnel, of payment plans which will guarantee dentists' incomes so that a sound program can be worked out whereby at least partial care can be provided for adults. Let us not allow the mountain of accumulated dental neglect to prevent us from making at least a beginning. I want to repeat—with emphasis—that these are only a layman's hopes. Nevertheless, I express them to you as a challenge to your imagination and ingenuity.

ANNOUNCEMENTS

Dominion Dental Council Examination

There will be a Dominion Dental Council examination held in Toronto on May 10 to 15, inclusive. Class D fee should be in the Secretary's office not later than the first of April and the Class A fees, April 10.

*A. J. Brett, Secretary,
Regina, Saskatchewan.*

Ontario Dental Association

The 78th Annual Convention of the Ontario Dental Association will be held at the Royal York Hotel, Toronto, Ontario, May 28, 29, 30, 1945. Dentists from the United States and from all parts of Canada will be welcome.

Edmund A. Grant, Secretary.

Western Canada Dental Society

The Biannual Meeting and Refresher Course of the Western Canada Dental Society will be held in Winnipeg at the Fort Garry Hotel June 18 to 20. An excellent program is being arranged.

Charles H. M. Moore, Secretary.

Canadian Dental Association

The Board of Delegates of the Canadian Dental Association will meet in Winnipeg at the Fort Garry Hotel, June 13 to 16. The Annual Meeting of the Association will be held on Monday, June 18. Hotel reservations should be made now.

Don W. Gullett, Secretary.

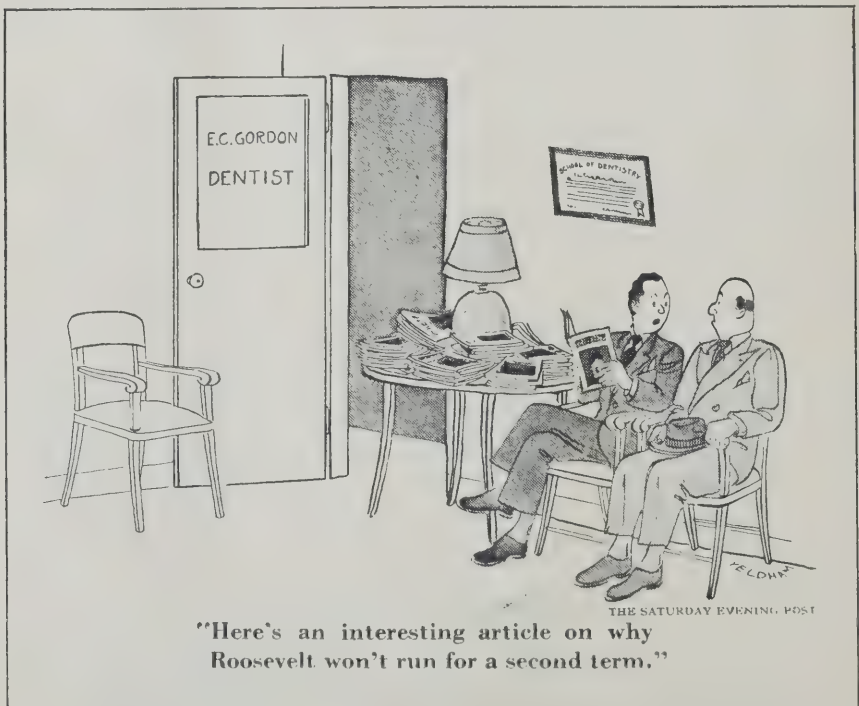
LOOSE TEETH

Excerpt from paper on Oral Surgery by Daniel F. Lynch, Washington, D.C., in *New York Jour. of D.*, Dec. 1944.

A GREAT number of men have the feeling that loose teeth are easy to remove. This is contrary to my experience. The loose tooth that has a small attachment at its apex in the bone is always a difficult tooth to remove. Unless the forceps is firmly placed upon the tooth and the tooth grasped in its entirety, there is a great tendency to fracture the root at its apex and hereby make a simple operation difficult. Besides these loose teeth often have considerable granulation tissue around them. We have seen several carcinomas develop around the site of a loose tooth. Cases that have had loose teeth removed and fail to heal properly should be watched for the development of car-

cinoma. In many cases early biopsy and treatment will insure cure. We have achieved some remarkable results by referring these cases for early treatment. If you have a biopsy examination made and it comes back negative and the wound does not heal as you think it should, take another section and send it to more than one laboratory.

I would certainly urge men doing general practice, to be wary of the loose teeth which seem easy to remove. I cannot too strongly urge that chronic inflammatory tissue around such teeth be sent to the laboratory for section and study. Many patients can be saved painful experiences and in some instances from early deaths by such a procedure.



THE DENTIST'S RESPONSIBILITY IN THE MANAGEMENT OF THE PATIENT WITH RHEUMATIC HEART DISEASE

by PHILIP M. NORTHPROP, M.S., D.D.S.

*From the Department of Oral Surgery, School of Dentistry, University of Michigan,
Comments on paper in Am. J. of Ortho. and O. Surg., Nov., 1944.*

FROM the results which have been given, it seems that the prophylactic use of sulphathiazole should be instituted in the patient having valvular heart disease when infection is present or surgical measures are contemplated. The prophylactic use of sulphathiazole, if given in doses sufficient to raise the blood levels above 4 mg. per 100 cc., reduces markedly the incidence of positive blood cultures.

Sulphanilamide, sulphapyridine, sulphadiazine and other sulphonamides may be as effective as sulphathiazole or more so.

It should be emphasized that sulphathiazole should not be used promiscuously and that its use is advocated for patients whose histories show a predisposition to endocarditis. At the present time, the sulphonamides are being used indiscriminately for many minor ailments, such as upper respiratory infections and sinusitis, and even before the extraction of carious teeth. Such use of these drugs is condemned. Not only is such indiscriminate use of doubtful therapeutic value, but it is also extremely dangerous to the patient should an idiosyncrasy develop. Furthermore, when an idiosyncrasy develops, the patient is denied the advantages of the drug later when a serious illness occurs.

Although in this study we have not encountered any drug reactions, it is suggested that a physician prescribe the drug, for, on rare occasions, a patient may show an idiosyncrasy to even a small dose or a single dose. Should such a complication arise, the physician not only can share in the responsibility, but also is better able to treat the situation.

In the management of the endocarditis case given premedication, the question arises: How much surgical work should be performed at one time? It is our opinion that, once there is adequate premedication, as much surgical work should be completed at one time as is possible. Of course, such factors as the general health of the individual, the difficulty and extent of the operation, and the degree of the infection, influence this decision. We should keep in mind constantly that a sulphonamide should be used the least possible number of times.

A word might be added here about the importance of the elimination of all questionable foci of infection in this type of patient. Subacute bacterial endocarditis may follow a severe upper respiratory infection, in fact any acute infection or injury. Therefore, the physician and dentist should eliminate any questionable foci so that an acute complication will not arise later and thus predispose this patient to subacute bacterial endocarditis.

The dentist should inquire routinely into the patient's past history to determine whether the patient has ever had rheumatic fever, chorea, or any heart disturbance. This inquiry should be made of patients with severe oral sepsis or when surgical procedures are contemplated. If, from this inquiry, possible or definite information suggesting valvular heart disease is obtained, the dentist should contact the patient's physician requesting his confirmation or diagnosis. If his examination suggests the mere possibility of valvular heart disease, sulphonamide premedication should be prescribed.

ORAL VACCINES FOR COLDS*Excerpt from Editorial by Eldon M. Boyd of Queen's University in Can. Med. Assoc. Jour., Jan., 1945*

TO FIND out for myself the value of oral vaccines for colds, I enlisted the aid of my class of medical students and staff during the winter of 1943-44. The group comprised 48 persons, half of whom were given an oral cold vaccine in the doses recommended by the manufacturers and the other half a placebo capsule of identical appearance and shape. Each person in the group was interviewed once a week for a period of 17 weeks and the onset and duration of each cold noted.

At the end of this period, there had occurred a total of 80 colds in the entire group. In the 24 persons who had received the oral cold vaccine there were 46 colds or an average of

1.9 colds per person; in the placebo-treated group, there were 34 colds or an average of 1.4 colds per person. Thus the use of the oral cold vaccine had not decreased the number of colds in this small series of cases. In the group receiving the oral cold vaccine, the average duration of colds was 6.6 days; in the placebo-treated group, the average duration was 6.9 days. Again there was no significant difference between the two groups in the duration of colds.

The obvious conclusion from these studies is that oral cold vaccines, or at least the one studied, which exemplifies this group of preparations, are of no value in preventing the onset nor in shortening the duration of the common cold.

HOW MUCH IS A BILLION ?

ASK yourself this simple question, "Am I a billion minutes old? Then make a quick guess for the answer. A minute is such a short interval in time; think how little it seems when you have a train to catch. Many people would and do guess that they have lived a billion minutes.

When you stop and figure it out, however, 60 minutes to an hour, 24 hours to a day and 365 days to a year, you'll find that to be a billion minutes old you would have to live 1,903 years. And, not counting interest, to accumulate a billion dollars you would have to earn a dollar a minute since the year 41 A.D., or \$525,600 a year for 1,903 years.

This simple illustration may help to give you a better idea of how big a billion is. The term is used so frequently in present-day government finance that it means little more to most people than just another expenditure. It takes 1,000 million of dollars to make a billion dollars. The

interest charges on a billion dollars at 2 per cent amount to 20 million dollars a year.

Now then, if 50,000,000 employed people in the nation work 8 hours a day, 6 days a week with 2 weeks' vacation and only Christmas for a holiday, and each of these 50,000,000 employees paid the government one dollar an hour, or \$2,400 a year, it would take 2 years to pay off a government debt of 240 billion dollars. This is approximately what the federal government owes today, and the debt may reach 300 billion dollars before the end of 1945.

It is well then for every taxpayer to understand the meaning of a billion dollars. "We have raised many billions for the war effort and can raise many more. But we certainly do not want expenditures of billions of dollars piled up on top of the war effort for any government activities which may be non-essential.—Michigan Survey per Jour. Mich. State D. Soc.

FACIAL PARALYSIS

by Commander HAROLD R. MERWARTH, M.C., U.S.N.R., Brooklyn

Condensed from the New York State Journal of Medicine per D. a Digest of Practice.

THIS is a review of 500 cases of facial paralysis studied by the author. The initial approach to these cases in every instance was due to peripheral facial palsy. There was no predilection for any particular season. There was no sex predisposition. Over 60% of the cases occurred in patients between the ages of 10 to 40 years.

Only 13 patients of this series gave a history indicating that they had been exposed to a draft. It is the feeling of the writer that the cause of Bell's palsy is an infection—chiefly because of the associated pain and taste disturbances both of which may precede the actual paralysis for days. A virus is the possible causative agent and it may be related to the virus of herpes simplex.

The patient was usually aware of the facial weakness but many times a friend called the patient's attention to the paralysis. Often the condition developed during the night. The patient became aware of the paralysis when shaving by getting soap in the eyes, when gargling or brushing the teeth or by the inability to spit. Excess saliva was present in but 1 case.

There were 8 patients with bilateral facial involvement at the same time.

Loss of taste was present in 47% of the patients and perversion of taste in 36% of all the cases. In many patients a taste perversion was present from 1 to 7 days before the paralysis. This perversion of taste was variously described as copperish, bitter, sour and salty. The fact that taste disturbances occurred prior to the actual palsy is a point in favour of a progressive inflammatory agent.

Pain, usually localized to the retroauricular region, was present in 40% of the patients. It ante-dated or occurred concurrently with the paralysis. Occasionally, the pain was shocklike or like a toothache. In approximately 30% of the cases no symptoms were present besides the paralysis. The patients with asymptomatic paralysis showed a tendency to rapid spontaneous recovery.

Twenty-nine patients in this series had experienced recurrences. Forty per cent of these cases were associated with pregnancy. There is no logical explanation for this neural complication of a normal physiologic process.

THE DENTAL HYGIENIST

by R. J. RINEHART, D.D.S., Kansas City, Mo.

in Journal Missouri State Dental Association, Dec., 1944.

ONE of the subjects for discussion today is the dental hygienist. Most of us remember a dramatic debate which occurred during a Missouri State Dental Meeting about ten years ago when it was suggested that the Association include in the dental law, then being revised, a provision for licensing the dental hygienist. At that time the majority were opposed to the training of women to engage in

any form of service in the mouth unless they were licensed dentists. It is my belief, based upon the records now available, that the dental hygienist is rendering a valuable service to patients in the office of the dentist under his direction.

There are two phases of dental practice which are scandalously neglected: dentistry for children and dental prophylaxis. With the aid of a well-

trained dental hygienist, a dentist can, if he is so inclined, and if he recognizes his responsibilities to the public, greatly improve these two phases of practice.

I include children's practice in this discussion because women are more adapted to the handling of children than most men. The hygienist with her talent will enable the dentist to make service for children a real pleasure. Also these two phases of practice are the most potent factors in practice building.

The training of the dental hygienist must be thorough. She must be carefully selected for this work. The en-

trance requirements should be one year of college education followed by two years of training in a school of dentistry. The dental law in each state should include a provision for dental hygienist licensure. More than thirty states have enacted laws providing for the granting of licenses to those who have completed the prescribed courses in dental hygiene. Some states have as many as 800 registered hygienists. About half of the hygienists are now serving in the armed forces. The United States Public Health Service also employs many hygienists.

A METHOD FOR TREATING THE PARODONTAL ABSCESS*

by SIDNEY SORRIN, D.D.S., New York, N.Y.

Assistant Professor of Periodontia, New York University College of Dentistry, N.Y. Jour. of D. Dec., 1943.

WE HAVE recently employed a method which has proved most effective in the treatment of the parodontal abscess. A parodontal abscess is a localized accumulation of pus situated in the supporting structures of a vital or non-vital tooth, and usually associated with periodontoclasia. It usually does not arise from periapical pathosis. Sometimes it is improperly referred to as parietal, lateral and periodontal abscess.

Our method is used most often when the marginal gingiva is intact, and the cemental or alveolar gingiva or both are involved.

The usual means of securing drainage through the gingival sulcus results in much gum recession. There is also the possible difficulty in healing, particularly if the diseased process extends interdentially. The button-hole incision method as advised by Miller is adequate, but does not allow for clear vision.

Fig. A. Location of the parodontal abscess.

Fig. B. A semilunar incision is made between the marginal gingiva and the involved area.

Fig. C. The granulomatous tissue is removed and the margins of the flap are sutured.

The procedure advocated is the semilunar incision which exposes the diseased tissues, and effects a most aesthetic result. Injections are made both on labial and lingual surfaces, being careful to avoid the diseased area. (Fig. A.) Semilunar incision is made between the marginal gingiva and the involved area (Fig. B), leaving the gingival margin undisturbed. After the area is curetted and granulomatous tissue removed, the margins of the incision are brought into place and sutured. (Fig. C.)

The results of this operation are most effective because all diseased tissue is easily removed and the minimum of recession occurs.

*The Committee on Nomenclature of the Academy of Periodontology recommended that or nearby, and not surrounding the tooth. The so-called parietal abscess may properly be the prefix "Para-" be used only when it is intended to indicate something specifically beside designated parodontal abscess if the lesion involves structures only on the side of or near the tooth but not involving the entire circumference of the tooth.



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The C. D. A. and a Full Time Secretary

A couple of months ago the writer received an anonymous article on the subject of a "Full Time Secretary for the Canadian Dental Association" for publication in the Journal. This article purported to be an exposition of the impressions of a "group of ordinary dentists who have a personal and professional interest in the C.D.A." The reason given for not attaching their names was that undue importance might be placed on their observations if the personnel of the group were known, a viewpoint which is difficult to understand since one would naturally feel that if any group of men have something worth while to offer for the good of Canadian dentistry, they should be willing to say so, and be prepared to stand back of their proposals.

Of course we do not publish anonymous material of this nature in the Journal but as the article was well prepared and contains certain valuable suggestions, I wish to comment on some phases of the matter. In this article, it is pointed out that the C.D.A. is a Dominion-wide body giving leadership to all provincial and local groups and that therefore this leadership should be entirely free from even the possibility of a dominant influence by any one province. That collaboration from every province must be woven into the whole fabric. It further points out that our C.D.A. Secretary, while giving meritorious service to the C.D.A. and while being an exceptionally capable

official in every way, having all the qualifications necessary for his important post, may not be getting a fair deal under present arrangements. The article states that since our Secretary is employed only half time by our national Association and the other half of his time is given to the Royal College of Dental Surgeons of Ontario, may it not be true that at times he is called upon to decide which one of two bodies he should serve, or can a man serve two masters?

The following are some of the changes this group would have made as soon as possible:

1. The position of Secretary of the C.D.A. be made a full time appointment.
2. The Headquarters of the C.D.A. be moved to Ottawa where it will be closer to the Department of National Health, other government departments and organizations.
3. The annual C.D.A. fee be increased from four dollars to six, eight, or ten dollars per year.
4. Material issued by the C.D.A. for distribution to the public should be prepared by a Committee of the Association, in both English and French, and made available to every provincial body for distribution.

Many of us who have had the interests of Canadian dentists at heart have contended for years that our National Association should have a full time secretary and the only reason such has not materialized is lack of funds; so this group is quite right in advocating an increase in dues, and I would suggest that a little action along this line would count for more than pages of argument. In other words, why does not this group see to it that their province agrees to pay the suggested increased amount? I would point out once again that Manitoba passed the following resolution unanimously, November 2, 1943: "The Manitoba Dental Association in Annual Meeting assembled, hereby declares that the fee for dentists, throughout Canada, to the Canadian Dental Association, should be at least \$10.00 and undertakes to pay that fee if and when, in the opinion of the Board, a sufficient number of other provinces undertake to do likewise." That resolution still holds good.

In the mind of this writer, one of the obvious forward steps which should be taken to advance our Canadian dental profession is to increase our annual dues to \$10.00. In the meantime, we are hardly justified in condemning Ontario for paying part of our Secretary's salary and using half of his time in Ontario's interests. Naturally this arrangement is fraught with dangers of misunderstanding but considering all the possibilities everything has worked out very well, due in no small measure to the straightforward and honest attitude of our very efficient secretary and to the high sense of professional responsibility and cooperation of the Ontario Board.

BOOK REVIEWS

The Classification and Treatment of Injuries to the Teeth of Children. by Roy Gilmore Ellis, B.D.S., (Adel.), D.D.S., M.Sc., (Dent.), Professor of Operative Dentistry and Director of the Dental Clinic, Faculty of Dentistry, University of Toronto, Chairman of the Research Committee of the Canadian Dental Association. Published by the Year Book Publishers Incorporated, 304 South Dearbourne Street, Chicago, Illinois. 248 pages. 154 illustrations. Price \$3.30. Canadian Agents, McAinsh and Co., Ltd., Toronto, Ontario.

This book is a reference manual for the dental student and the general practitioner, written in a concise practical manner. The problems of traumatized teeth in children is one which perplexes most of us each time one presents. With the classification suggested as a basis for treatment, these problems are discussed logically and treatment becomes simplified. Each chapter, dealing with one particular class of injury, is

preceded by a unique "prescription for treatment" set out in a step by step outline of procedure.

The text is illustrated with numerous photographs and radiograms of actual clinical cases treated by the author. In the chapter dealing with the replacement of lost teeth in the young child, treatment planning according to age is illustrated.

Whether it is a simple fracture, a fracture involving exposure of the pulp, fracture requiring root therapy, root fracture, the loss of a tooth, the displacement of a tooth, or any combination of these, the answer is to be found in this book and a procedure for treatment outlined which every dentist can follow. As a ready reference and a guide in general practice this valuable book should be in every dental office.

As author of this book, Dr. Ellis has not only done much for Canadian Dentistry but he has made a splendid contribution to Dental Literature.

—S. A. MacGregor.

Year Book of Dentistry, 1944. Edited by Charles G. Darlington, M.D., Professor of Pathology, New York University, College of Dentistry; George W. Wilson, D.D.S., Professor of Operative Dentistry and Assistant Dean, Marquette University, Dental School, Milwaukee; Carl W. Waldron, M.D., D.D.S., Professor of Oral Surgery, University of Minnesota, School of Dentistry; Stanley D. Tylman, D.D.S., M.S., Professor of Prosthetics, University of Illinois, College of Dentistry, Chicago; George R. Moore, D.D.S., m.s., Professor and Head of the Department of Orthodontics, School of Dentistry, University of Michigan; and Consulting Editor, Howard C. Miller, D.D.S., L.L.D., Chicago Illinois. Published by the Year Book Publishers, Incorporated, 304 South Dearbourne Street, Chicago, Illinois. 701 pages. Cloth. Price \$3.00.

The 1944 Year Book, as in former years,

reviews dental professional literature for the previous twelve months. The book is divided into the following sections:—Diseases of the Mouth, Pathology and Dental Research including caries, nutrition, Aerodontia and Periodontia; Operative Dentistry including Oral Medicine, Restorative Dentistry, Pedodontics, Public Health Dentistry and a new chapter on Dentistry in Industry; Oral Surgery including Infections and Chemotherapy, Wounds and fractures; Prosthetic Dentistry, including a special article on Maxillofacial Prosthesis; Orthodontics including a discussion in Orthodontic Procedure and various types and phases of treatment.

Some of the discussions presented are of particular interest. e.g. Fluorine in caries prevention, Thymol in cavity sterilization, Dentistry for Children, Costs of Dental Care, Penicillin in Dentistry and Management of Fractures of the Facial Bones.

This book is not only a reference book to

modern dental thought, it is an encyclopedia in its scope and it will enable the reader to be conversant with newer developments in dental achievement. It includes an excellent

index both as to text material and authorship. In all, the book should appeal to the busy dentist as it is a digest of dental literature for the year.

—T. R. M.

CORRESPONDENCE

D.P. and N.H. and Dental Care for Ex-Service Personnel

To D. D. Wilson, D.D.S.,
Chief, Division of Dental Services,
Department of Pensions & National Health,
Ottawa, Ont.

During recent months many ex-service men have been presenting themselves to civilian dentists of their own choice for dental treatment which is to be paid for by the Department of Pensions & National Health. Generally, before the patient presents himself, the dentist receives by mail an authorization from the Department stating what that particular man needs and what fee will be paid. We, as civilian dentists wish to protest most vigorously against the manner in which this whole plan has been instituted and carried out. Our complaints are made purely in the spirit of constructive criticism in the hope that some more satisfactory and efficient system can be devised to handle this problem.

1st—Why was this problem "dumped into the laps" of civilian dentists without consultation in us? The first intimation we had of any such plan was when the forms began arriving in the mail. Surely it would have been better to have talked it over with us first.

2nd—The Department's examination very rarely coincides with our own findings when these men present themselves for treatment. Recently, in my own office, a man who had been one of my patients for a number of years before the war, came for treatment after discharge from the Army. The chart which the Department sent me called for 6 "fillings" and a partial upper denture. My examination of his mouth showed a need for 13 fillings and a partial upper denture is, to my mind, contra-indicated. Instead, he should have a one-tooth fixed bridge with two abutments. He also needs a fixed bridge or partial denture in the lower jaw. This is not mentioned in the Department's chart at all.

We dislike being told what we are to do for a patient. We feel that we are fully qualified to make an examination of a patient's mouth and say what treatment is necessary. What are we to do when we find our examination of the mouth does not agree with yours? What is the patient to do? *Please* do not advise that we should "write to Ottawa" about it and it will be rectified. I am afraid neither the dentist nor the patient can spare all the time that would be necessary to get engulfed in all the "red tape" that would involve. This is a most urgent and ever recurring complaint. If something is not done to rectify it, the reputation and the record of the Dental Corps (and it has been an enviable one) will be the chief sufferer. This is not idle chatter as we have heard some of the comments by these patients on being told that the Department says such and such is to be done at a fee of so much but that examination of the mouth shows a very different condition.

3rd—The fees allowed for the various operations need drastic revision. This is so obvious on looking over one of the forms that it requires no further comment.

4th—The reports which the dentist must send to the Department after completion of the patient's treatment, to our mind, are too complicated and require an unreasonable amount of time to make out. This will become practically impossible to do in the average busy dental office when many more men receive their discharge from the services than are coming out now.

These are the main complaints we have to make. In conclusion, let me say that I think the dental profession realizes its responsibility in this matter. These men *must* be looked after. We feel that the whole plan could stand revamping and *soon*. The problem is

bad enough as it is now, but I shudder to think what confusion, bitterness and dissatisfaction there will be when the war is won and many more thousands of our service men will be returning to civilian life.

I wish to assure you of our desire to co-operate in this matter to the satisfaction of all concerned.

(signed) L. S. Burton, D.D.S.
Secretary, Montreal Dental Club.

Reply

To Dr. L. S. Burton,
Secretary, Montreal Dental Club.

This will acknowledge, please, receipt of yours of the 18th instant having reference to the provision of dental services to ex-service personnel and other persons eligible to receive same under this Department.

The several points raised in your letter under reply have been noted. Our procedure

is presently under review and you can be assured your observations will not be overlooked.

The Department appreciates very much your desire to co-operate and it is hoped that when final arrangements are made, there will be little room for any complaint.

(signed) D. D. Wilson, D.D.S.,
Chief, Division of Dental Services.

Excerpts from a Private Letter to the Editor from a London Dentist

"May this year soon bring Peace to us all. We have had a number of Italian prisoners about here, and this year for the first time they are allowed to use the buses and go to the pictures. It is interesting to see how pleased they are when people wish them good-

day or a Merry Christmas. The bombing has been unpleasant but so far I have not been hit by anything worse than debris. We have great schemes of reconstruction in hand; I do hope that our people will turn to God and carry them out in the right spirit."

May I suggest that it is necessary for the dental profession to utilize better the services of the dental hygienist just as the medical profession utilizes the services of the nurse, that the laboratory technician be used as he should be, for he has an important and definite place in dentistry. In short, why should we as dentists do a single task in our offices that can be done by one who does not have a dental degree, be it a laboratory technician, dental hygienist, or a capable assistant. We need to make our work as a whole more efficient by limiting our activities as licensed dentists to the work that only we can do well. In this way, we can serve many more people and possibly eliminate the dangers of the incompetent group, and in a measure remedy the situation we face today and will face in the postwar years.—James E. Weedon, D.D.S., in Jour. Mo. D. Assoc.

Revolutionary politics have one of their sources in the idea that societies are capable of infinite and immediate modifications, without reference to the deep-rooted conditions that have worked themselves into every part of the social structure.—John Morley in Edmund Burke, p 51.

"Research is an organized method of finding out what you are going to do when you can't keep on doing what you are doing now. . . . Research is a state of mind."—C. F. Kettering.

DENTAL CORPS NEWS

Dental Corps Works Under Fire

by CAPTAIN JACK GOLDING

From the "Maple Leaf" (for Canadian Forces in Europe)

Capt. Lou Hubbell and Pte. J. E. Korsberg were busy in their dental lorry. Immaculate in "whites" they worked quietly with all the most modern equipment of the profession at their disposal. It might have been a dentist's office in a smart business building in any big city in Canada.

Down the road a Dutch windmill creaked as its blades revolved in a freshening wind, and a rare splurge of sun made even the mud look good. The scene was also a few miles from the German border where Canadian troops are battling on Hun soil.

It was at headquarters of No. 9 Canadian Dental Company, first complete company of the corps to land in continental Europe, commanded by a youthful dentist who practiced in Ottawa for several years before the war. It is an efficient unit, serving a large formation spread over many miles, and typical of Canada's dental corps which is second to none in any army in the world in personnel, equipment and operation.

Through the Mill

These professional men and their assistants have been through the mill from Caen, Vaucelles, Falaise and the long run across France, Belgium into Holland and finally the Nijmegen salient. They take the latest in dental attention to the fighting men, sometimes to "F" echelon, and know what it's like to work under shell and mortar fire. Their 21 operating dentists are spread over many formations and the men in the line get the best with least possible time away from their jobs.

Throughout the Canadian push in Europe they've handled the Canucks, English, Yanks, Czechs, Dutch, Belgians, Poles, civilians and many others. They've made and repaired enough false teeth to keep a nation chewing and kept many a good set fit for hardtack. They handle battle casualties of a dental nature either on the spot or through medical channels, for every operator is familiar with the Maxillo method of dealing with facial injuries.

This unit is a good example of what Can-

adian Army dentists are doing at various strata of army organization. Some of the men are right with the fighting units and have had many narrow squeaks. Canadian troops receive treatment that a great many would not ordinarily experience in civilian life—one reason why Canada's dentists have made such a reputation among the mixed troops on the western front.

When the dental corps began it insisted on keeping its organization as closely in keeping with modern trends as possible. It fought for and got the proper equipment. It is strictly army but serves the army, navy and air force. While these professional men, like doctors, lawyers, engineers and others left lucrative practices to enlist, they must return to civvy street one day to pick up—not where they left off—but in many cases to re-begin.

Each detachment from a dental company comprises a dentist, a sergeant assistant and a driver orderly. They have their lorry with all modern kit, electric lights—the works! They also have a hand kit for emergency cases when a man can't be brought to them. They can set up and be operating in one hour—even in the midst of a sea of mud and woody wilderness. They have everything, thanks to the far-sightedness of their organizing personnel.

Among the personnel in this unit, now near Germany, are: Major B. P. Kearney, Toronto; Capt. L. E. Hubbell, Sudbury; Capt. R. T. Lamb, Montreal; Capt. R. B. Cameron, Swift Current; Capt. C. H. Carley, North Battleford; Capt. A. A. Antoni, Trinidad; Capt. H. T. Smith, Toronto; Capt. A. A. Brightman, Edmonton; Capt. J. Bonness, Montreal; Capt. J. D. McLean, Regina; Capt. H. Robb, Regina; Capt. J. K. McNally, quartermaster, Calgary; Capt. J. Peters, adjutant, Hamilton; Capt. A. L. Williams, Hamilton; Capt. H. Klein, Montreal; Capt. A. L. Goodman, Edmonton; Capt. H. Yack, Hanover; Capt. R. Silverstone, Montreal; Capt. C. A. Shaffner, Port Arthur; Capt. H. A. Allen, Winnipeg; Capt. R. Sparling, Toronto; CSM R. B. Lackey, Orangeville, Ont.; Sgt. E. Horan, Winnipeg; S/Sgt. S. Knight, Toronto; QMS G. L. Giffin, Brockville; Sgt. Robert Gillies, London; L/Cpl. J. W. Stewart, Toronto; L/Cpl. B. W. Buck,

Timmins; Cpl. C. Wilson, Saint John; Ptes. B. Patterson, Toronto and J. E. Korsberg, Loomis, Sask.

C.D.C. News Items from Overseas

A group of C.D.C. Officers presented a clinic to the Brussels Dental Society, dealing with the Maxillo-Facial Casualties at the hospital and discussed the history and treatment of the patients and later demonstrated the C.D.C. Field Dental equipment with X-Ray.

C.D.C. Officer in Italy writes to say that a Dental Officer of Greece, stationed near him, gave the following information: "In normal times, all dentists completing a six-year course, must then spend 6 months in the Greek Army, after which they become reserve officers." Dental Officers in the Greek Army, spent two years as 2/Lt. This Dental Officer of the Greek Army, was a professor at the University of Athens Dental College and was very interested in the C.D.C. equipment.

A team of ping pong players from Dental H.Q., somewhere in Belgium, returned with the silver cup, after meeting a team of Belgian athletes from a "certain area." It has not yet been determined whether the cup was won or "stolen."

Major J. A. McLeod, Bridgewater, N.S., C.D.C. somewhere in France, reports he has

now a complete standard equipment with hydraulic chair, unit cuspidor, electric engine and electric air compressor. This was formerly a German installation which remained intact after the Germans' retreat and was placed in operation by our Corps.

Major A. Lipson, Toronto, with Mobile Dental Unit was returned from Normandy to his H.Q. in France after a month's work in that area.

Personnel of 6 Co'y., C.D.C., H.Q., are enjoying billets for the first time since arrival on the continent. This is a large building which is shared with the medical group. Accommodations are very good, rations are good and include an issue of fresh meat every second day.

Somewhere in Italy L/Cpl. Shotton, Dental Assistant to Capt. Allan had a narrow escape today. He tripped over a wire near his clinic area at — and set off a land mine within a few feet. He received no injury but was badly shaken.

Capt. K. M. Walley, McMasterville, P.Q., somewhere in Italy—writes to say—"I am now sporting a modern dental chair, electric engine and spot light, left behind by an exclusive Fascist dentist who is now a Lieut. in the German Army."

Major H. R. Kerr, Regina, Sask., Capt. S. C. Duncanson, Glencoe, Ontario, Major A. Mintz, Regina, Sask., returned to England from Europe.

SUPPLEMENTARY LIST OF CANADIAN DENTAL CORPS OFFICERS, JAN. 31, 1945

APPOINTMENTS

Rank, Name and Date	Civilian Address
Lieut. M. H. Ottem, 30-12-44.....	Unity, Sask.
Lieut. T. H. Walhovd, 30-12-44.....	Veteran, Sask.
Lieut. G. C. Evans, 30-12-44.....	Warner, Alta.
Lieut. F. A. Fernet, 30-12-44.....	Calgary, Alta.
Lieut. D. S. Gilmour, 30-12-44.....	Edmonton, Alta.
Lieut. A. S. Nay, 30-12-44.....	Two Hills, Alta.
Lieut. H. L. Samuels, 30-12-44.....	Edmonton, Alta.
Lieut. R. J. Warshawski, 30-12-44.....	Mundare, Alta.

Lieut. F. A. Fergie, 30-12-44.....	Cranbrook, B.C.
Lieut. T. W. James, 30-12-44.....	Victoria, B.C.
Lieut. J. D. McInnis, 30-12-44.....	Prince George, B.C.
Lieut. J. B. Franckum, 18-1-45.....	Vancouver, B.C.

RETIREMENTS

Rank, Name and Date	Civilian Address
Capt. J. L. Savage, 22-12-44.....	Montreal, Que.
Capt. P. J. Watson, 1-12-44.....	Toronto, Ont.
Major W. E. Addinell, 20-12-44.....	Edmonton, Alta.

Assuming increasing control of infectious diseases and a decrease in the prevalence of war and a not too rapid weakening of the human race by the reproduction and survival of the less fit, it seems clear that food will some day be the limiting factor of our numbers, if not of our health and efficiency, no matter how much more understanding we may gain of the interior of the earth, of sub-atomic energy and of the super galaxies in the distant heavens. That means that agriculture and foods are clearly must items in the teaching of human biology tomorrow. But why wait till tomorrow?

—Prof. A. J. Carlson in Science.



GROUP OF CANADIAN DENTAL CORPS OFFICERS, FIRST CANADIAN ARMY OVERSEAS, TAKEN IN PARIS DURING THEIR ATTENDANCE AT THE 18TH PARIS DENTAL CONGRESS HELD ON NOVEMBER 23-26 INCLUSIVE, 1944:

Left to Right:—Captain F. L. Hebert, from Baie Comeau, Quebec, appointed to C.D.C., Sept. 1, 1940, and proceeded overseas Sept. 20, 1941; Captain E. Gaboury, from Montreal, appointed to C. D. C. Dec. 27, 1941, and proceeded overseas Aug. 20, 1942; Lt.-Col. E. Fraser Allen, from Vancouver, B.C., appointed to C. D. C., rank of Captain, Sept. 1, 1939, and proceeded overseas as O.C. No. 4 Coy. Aug. 27, 1941; Captain R. T. Lamb, from Montreal, Quebec, appointed to C. D. C. Sept. 1, 1940, and proceeded overseas Sept. 1, 1941; Captain M. Lamarche, from Maniwaki, Quebec, appointed to C. D. C. Feb. 2, 1941, and proceeded overseas Sept. 16, 1941.

CANADIAN DENTAL ASSOCIATION NEWS

(FROM THE OFFICE OF THE SECRETARY)

Separate Charge for Materials

The dividing of the professional fee has become a point of concern to the profession.

In the setting up of plans for dental services there are now several instances where the laboratory charges and material costs are required to be itemized separately from the charges for professional services. Fairly recently a municipal committee of a large city in the United States took a definite stand upon this matter.

Our attention has been brought to the fact

that in at least one area in Canada the Inspector of Income Tax is requesting those applying for exemption of dental fees to submit statements as to the part of the fee which represents material costs and the part charged for professional services. It is our hope that this is an idea localized in one official rather than any ruling by the Income Tax Department.

The dental profession could not afford to look aside at such an important trend if it continues to develop. The ultimate result

means* that the dentist would be entering the commercial field of selling commodities used in the practice of dentistry. Broadly speaking the dental practitioner would in the end be itemizing the cost of the cement used under a filling, the medical practitioner the cost of the catgut used in an operation and the practitioner at law the cost of the paper and ink used in drafting a will, all of which is adverse to the basis of the real meaning of a professional fee. The dentist renders his fee for a health service rendered.

Three Clinics Are Planned in Saskatchewan

Establishment of dental clinics in at least three Saskatchewan cities to serve old age and blind pensioners and their dependents, children of women receiving mothers' allowances, wards of the government, and other persons, is planned by the provincial government under its socialized health service program, Premier T. C. Douglas said Thursday.

Cities tentatively selected for the clinics are Saskatoon, Moose Jaw and Regina.

The matter has already been discussed with the Saskatchewan Dental Association, Mr. Douglas added. Difficulty in finding trained personnel may cause a slight delay in carrying out the program.

The dentists will be on salary with the provincial government, and all expenditures incurred by the clinics will be paid by the government.

Cards To Be Issued

The premier explained that persons entitled to dental care will be issued cards which they may take to the closest clinic and ask to be given the dental attention they require.

A priority system will be worked out, so that cases in immediate need of dental care will be treated first. Emergency cases — extractions, or where infected teeth are affecting a person's health — will be first in the order of priority. Children's fillings, looked upon as preventive dentistry, will be second in line, with other cases to be dealt with next. —Regina Leader Post, Jan., 1945.

Health Insurance

At the recent meeting of the C.D.A. Executive held in Ottawa, the Hon. Brooke Claxton, Minister of National Health and Social Welfare made rather definite statements respecting health insurance for Canada:

- (1) that no form of state medicine would be introduced by the present government.
- (2) that the present relationship between patient and dentist would be maintained.
- (3) that the object of the government was simply to make more money available for people to purchase more health services.
- (4) that the next session of parliament would probably be interrupted for a Dominion-Provincial conference on health insurance in order to settle some difficulties chiefly of a financial nature.
- (5) that the legislation would begin to operate at the earliest on July 1st 1946 and probably at the latest July 1st 1947.
- (6) that no changes were contemplated by the government in the benefit sections of the bill as now drafted.

In reference to the Family Allowance Bill Mr. Claxton stated that the distribution of an average of \$15.00 per month to every family in Canada would begin on July 1st next. The intention of the government is to see that this money is spent for the purposes intended a part of which would find its way to dentists in private practices.

Urge State Medicine as A.F.U. Meet. Ends

Edmonton, Jan. 28, 1945—(CP)—Resolutions urging abolition of the three-cent gasoline tax, adoption of state medicine and support of the co-operative movement in Alberta were endorsed yesterday at closing sessions of the four-day Alberta Farmers' Union convention here. The resolution on state medicine included a request for free hospital, doctor and dental care for all citizens.

Other resolutions passed included one asking the federal government to pay old age pensions at the age of 60, and another recommending that a standard system of education

be set for all provinces in all subjects and that text books should be furnished at cost.—Toronto Star, Jan. 27, 1945.

Dentists—Beware!

British Columbia dentists will be wary of exercising their own judgment when it comes to extracting teeth in future. Mrs. Amanda Pearl Yule, of Penticton, has been awarded \$5,200.00 damages against Drs. J. R. and T. F. Parmlee because all her upper teeth were removed without her consent while she was under an anaesthetic for a tonsil operation.

Dr. J. R. Parmlee, a surgeon, who gave his brother the order for the extractions, has to pay \$5,000.00 of the damages. The doctors appealed the case, but lost.—Saturday Night, Feb. 3, 1945.

Opinion in Great Britain

Several opinion polls have been conducted in Great Britain on various points arising from the Government's White Paper on the provision of health services.

Some of the questions asked were as follows:

By a Gallup Poll entitled "What The Public Thinks" as published in the News Chronicle of August 9, 1944.

Question: On the whole, would you like the idea of a publicly run National Health Service, or would you prefer hospitals and doctors to be left as they are?

- For National Health Service 55%
- Leave things as they are 32%
- Don't know 13%

Question: Who do you think should have most to say about the way medical services are arranged—the doctors, or the public through the Government?

- The doctors 25%
- The public 35%
- An equal share to each 32%
- Don't know 8%

The British Institute of Public Opinion re-

ports in the British Medical Journal of August 5, 1944 on its survey conducted with the support of the British Medical Association. A little later (on August 19) the Journal published opinions on similar issues from a survey conducted among British medical students by their own Association. The answers to these questions are produced in juxtaposition below:

Questions dealing with a National Health Service in general

Question: With the introduction of a National Health Service, as described in the White Paper, do you think that the quality of the country's medical service will be enhanced or will suffer?

	Doctors	Students
Enhanced	32%	49%
Suffer	44%	36%
Unaffected	12%	—
Don't know	11%	14%

Question: On the whole, are your reactions to the White Paper favourable or unfavourable?

	Doctors	Students
Favourable	39%	51%
Unfavourable	53%	40%
Don't know	6%	7%

Question: Would you enter the National Health Service as it is described in the White Paper and would you regard medicine as an attractive profession for your child?

	Doctors	Students
Yes	33%	41%
No	51%	43%
Don't know	15%	15%

Question dealing with Coverage

Question: The White Paper proposes that complete medical services, including hospital and specialist services, shall be available to everyone free of charge. Do you agree or disagree with this proposal? (The 100% proposal)

	Doctors	Students
Agree	60%	72%
Disagree	37%	25%
Don't know	2%	2%

Questions dealing with Administration, Set-up and Control

Question: The White Paper envisages as the central administrative structure the Minister of Health plus the Central Medical Board. Do you think that this arrangement is satisfactory or unsatisfactory?

	Doctors	Students
Satisfactory	35%	41%
Unsatisfactory	51%	40%
Don't know	7%	16%

Question: The Board must be able to require a young doctor who decides to enter the public service to give his full time to that service during the early years of his career in cases where the needs of the service require this. Do you regard this as reasonable or unreasonable?

	Doctors	Students
Reasonable	31%	53%
Unreasonable	66%	45%
Don't know	2%	2%

Question: Any practitioner wishing to set up a new—or take over an existing—public service in a particular area will seek the consent of the (Central Medical) Board. The Board will then have regard to the need for doctors in the public service in that area, in relation to the country as a whole, and in relation to the general policy for the time being affecting the distribution of public medical practice. If it is considered that the area has sufficient . . . in public practice while other areas need more doctors consent will be refused. Otherwise it will usually be given without question. Is it reasonable that the Board should have these powers?

	Doctors	Students
Reasonable	57%	65%
Unreasonable	39%	31%
Don't know	4%	3%

Question: Do you approve or disapprove of the principle of Health Centres?

	Doctors	Students
Approve	68%	89%
Disapprove	24%	8%
Don't know	6%	2%

Question dealing with Remuneration

Question: Should payment in a National Health Service be by salary, by capitation fees, or by a combination of both?

	Doctors	Students
Salary	15%	34%
Small basic salary plus capitation fees	35%	53%
Capitation	44%	10%

N.B. No mention was made of fee-for-service.

Question dealing with Political Freedom

Question: Some people paid by the State are debarred from politics or standing for Parliament. Do you agree or disagree that provision should be made to safeguard these political rights of doctors entering an N.H.S.?

	Doctors	Students
Agree	90%	90%
Disagree	5%	5%
Don't know	3%	4%

NEWS FROM THE PROVINCES

ONTARIO:**Brantford's Water Supply**

A meeting of the Brantford Dental Society with Dr. F. J. Wentworth, President, presiding was held in the City Hall on February 7, for the purpose of considering and discussing the effects of introducing sodium fluoride into the water supply of Brantford.

Also in attendance at this Meeting were Dean A. D. Mason of the R.C.D.S. Dr. H. J. Hodgins, Director of Dental Services for the Province of Ontario, and Dr. Harold Box of the College Faculty. The fact that these gentlemen had braved the rigors of an Ontario winter with the roads piled high with snow, showed their real interest in the City's experiment.

The importance of making a thorough examination of the teeth of school children, and of keeping an accurate record at this time was brought out in order that the effects of fluorinization of the water supply could be ascertained from time to time over a period of years.

The City of Grand Rapids, Michigan, is also adding fluorine to its water supply, and as it is farther advanced with this a delegation consisting of members from the Provincial Government and from this City will leave next week for Grand Rapids to ascertain the procedure in this matter.

The system of recording caries and the condition of the mouths of school children will be studied and a report will be received by the Brantford Dental Society at its March Meeting.

This Delegation will be comprised of Dr. W. Hutton, Brantford Medical Health Officer; Dr. H. J. Hodgins, Dr. A. E. Berry, Director of Sanitary Engineering Division, Ontario Department of Health; James Moyle, D.D.S. of the Brantford Board of Education; Mr. C. C. Cariss, Chairman of the Fluorine Committee; Mr. W. R. Catton and Mr. Reg. Welsh, Chairman of the City's Public Utilities Commission.

Dr. E. J. R. Pennal.

The Toronto Study Club of Dental Technicians

The annual dinner meeting of the Toronto Study Club of Dental Technicians was held at the Royal York Hotel on January 20 last. Bill Walker, the efficient president was in the chair and kept the meeting interesting and moving right along.

The genial and entertaining Duncan Cowan and his associates were in charge of the entertainment. The evening was given over to nothing serious. The witticisms and humor of the speaker, Mr. Fred Trestrail, were much enjoyed.

Harry Posen, the hard working secretary, gave an interesting report, and outlined the club's intended visit to Detroit. Plans, at present, call for a visit with the Kerr Com-

pany and a session with Detroit and State Guild. A big time is expected for all, so here's hoping.

Reports by the various committees were heard. Charles Mellish, the keeper of the cash, had a good one to make on our financial position. Jim Price, the membership man, introduced Art Webster, his new member for the month. Jim is giving out of town members, not present at the meeting, a swell résumé of what took place.

The evening closed with "That quiet little game" and all had a very good time.

C. E. Spence

Ontario Dental Nurses' and Assistants' Association

Patriotic Donators and Knitters Club: Orchids to Ethel Roberts, Toronto, who has knitted for our war club 302 garments to date; Marie Silliphant, Oshawa, who joined our visiting committee at the Red Chevron on February 11 and brought with her 90 chocolate bars and 24 packages of cigarettes; Irean Bruce, Provincial President, who assisted our War Convener pack 1,575 articles of general comforts for overseas.

We are proud of the records of these members and the letters received from overseas are sufficient proof that "their labours are not in vain." Lieut.-Col. C. L. Strachan, C.D.C., writes:

Dear Mrs. Blaber:

On behalf of the personnel of this company and myself, please accept our grateful thanks for the Christmas boxes just received. They will be distributed to the boys in the most equitable manner possible, and I can assure you of their very sincere appreciation of the thoughtfulness and kindness of the members of the P.D.K.C.

Our very best wishes to you and the members and may 1945 return us to you.

Toronto Affiliated Association: The Toronto members and friends enjoyed a sleighing party on February 5 which took the place of the regular February meeting. After a delightful hour on the sleighs, refreshments were served in the Club House of the Sunnybrook Riding Academy.

Hamilton Affiliated Association: The Hamilton Dental Nurses and Assistants were guests of Mr. C. P. Elliott for dinner on February 8, and later visited the Elliott Laboratory for instruction on laboratory technique. Thirty-five members and guests spent a thoroughly enjoyable evening.

London Affiliated Association: On January 7, the London Dental Nurses and Assistants met in the office of Dr. J. A. Gillies. Dr. H. G. Marshall, Chairman of the Dental Public Health Committee of the London Dental Society and member of the Public Health Council of the Ontario Dental Association, gave a most educational and interesting talk on Dental Public Health.

Kitchener Affiliated Association: The January dinner meeting was held at the Old Mill. Dr. Fischer was the guest speaker and his talk was followed by an intelligent and enthusiastic discussion.

Brantford Affiliated Association: At the January meeting, plans were made for x-ray and health examinations for our members. Facilities of the Brant Sanatorium will be used. Group hospitalization for our Association was also a subject under discussion.

Arlene Jemison Creeny.

Toronto Academy of Dentistry

Members of this society had a double bill in February. Early in the month they heard Dr. Emmett Beckley discuss his method of complete denture procedure. Then on February 25, Group Captain Fred Tisdale, of the R.C.A.F. Medical Service presented a discussion with coloured slides of a nutrition survey conducted in Newfoundland. By courtesy of the Life Insurance Officers Association a report of this survey will be sent to every dentist in Canada in due course.

New officers of the Academy for 1945-46 are: Pres., Dr. H. A. Swales; Pres.-Elect., Dr. H. C. Bliss; Secty., Dr. F. H. Shepherd; Treas., Dr. J. H. Johnson; Past Pres., Dr. H. R. Skilling. The councillors are: Downtown, Dr. R. J. Godfrey; Central, Dr. P. G. Anderson; East, Dr. Earl Bancroft; West, Dr. Geo. Hare; North, Dr. E. A. White.

Post-Graduate Course: Dentistry for Children

Dean Mason of the Faculty of Dentistry, University of Toronto, reports the following members registered in this course:

Dr. H. C. Arnott, Oshawa; Dr. Roy Perry, Windsor; Dr. F. H. Dunnett, Brighton; Dr. R. J. O'Neil, Victoria; Dr. D. A. Campbell, London; Dr. R. W. Emerson, North York; Dr. R. W. Frank, Peterborough; Dr. B. W. Linscott, Brantford; Drs. J. E. Wright and F. E. Dawe, St. Catharines; Dr. H. G. Leayroyd, Sutton West; Dr. R. H. Ferguson, Kitchener; Dr. N. P. Truemner, Arthur; and the following from Toronto: Dr. E. Harold Campbell, Dr. Walter H. Godsoe, Dr. T. H. O'Connor, Dr. S. L. Honey, Dr. F. T. Leo (Miss).

2T3 Class Reunion

There will be a reunion dinner on Monday evening, May 28, during the Ontario Dental Association Convention. Mark the date in your appointment book now and plan to be with us.

J. C. Fullerton.

Dental Laboratories Association

The Dental Laboratories Association of Ontario plans a large three-day convention for May 26th, 27th, 28th.

Committees are making plans and arrangements for outstanding clinicians of special interest to laboratory owners.

Plan to make our convention a big success.

The Ottawa Dental Society 1944-1945

President: Dr. Thomas Provost.

Vice President: Dr. Harold Armstrong.

Secretary-Treasurer: Dr. Paul A. Coté.

Past President: Major W. O. Gardiner.

Advisory Board: Doctors P. Nesbitt, H. W. McCartney, A. Couture, G. Barrett, F. Thompson, Jack Lawrence, and Capt. F. French.



DR. THOMAS PROVOST
President of Ottawa Dental Society

FIRST MEETING

The Ottawa Dental Society opened its season's activities on November 20, in the "Quebec Suite" of the Chateau Laurier.

A record attendance of 65 members were present.

Dr. J. H. Johnson of the Faculty of Dentistry of the University of Toronto was the guest speaker at this First Meeting. He addressed the members on "General Anaesthesia."

Dr. Johnson was introduced by Dr. L. R. Braden and thanked by Dr. A. A. Cameron.

SECOND MEETING

The second meeting of the Society was held on December 11.

Dr. J. W. Morton of McGill University was the clinician for the evening giving the members his technique on "Amalgam for the Busy Practitioner."

Dr. Lorne MacLachlan introduced Dr. Morton.

The thanks of the Society was expressed by Dr. Jack Lawrence.

THIRD MEETING

The third regular meeting of the Ottawa Dental Society was held on January 15.

A very interesting talk and demonstration was given to the members by Mr. Major, assistant Historian of the Bell Telephone Company of Canada. "Your Voice as Others Hear It."

Dr. Geo. Barrett introduced the speaker.

Dr. Louis Coté thanked Mr. Major and also related many incidents as to the progress and advancement in the equipment of the Bell Telephone.

Two regular meetings are still to come.

One on February 19, 1945. Our guest speaker for the occasion will be Dr. Frank Cole from Toronto.

Our last regular meeting will take the form of a combined business and social evening with the dentists' wives in attendance.

The keen interest shown by all the members of the Ottawa Dental Society makes their Executive feel proud of their activities and will look forward to continued co-operation.

The London Dental Society

The Executive for the season is composed of:—

President—Dr. H. G. Marshall.

Sec'y-Treas.—Dr. J. A. Gillies.

Members—Dr. S. R. Moore., Dr. C. M. Snelgrove.

The first regular meeting was held on Armistice Day, the clinician and essayist being Dr. Walter T. McFall of Asheville, N.C. The afternoon session consisted of a large display of instruments, materials, models and literature pertaining to the practice of Children's Dentistry. Dr. McFall described when, where and how to use the various articles cleverly interspersing his table clinic with extremely humorous case histories and anecdotes which illustrated the seed ideas he

wished to convey. The president-chairman invited all to the Armistice Day dinner at which the Padre of Westminster Hospital (Rev. Mr. Manly) was guest speaker. He related some incidents in his work in sociology and it impressed one as being extremely humane and successful; a collection was taken and given to the speaker to be used at his discretion. A special welcome was extended to those members of the Dental Corps who were present and also to Dr. Ross Thomas of Toronto. In the evening Dr. McFall continued to lead his audience into a fuller realization of their duty toward "our best patients" CHILDREN. So far was it from the ordinary, orthodox clinic that, what Grimm's Fairy Tales are to literature, the McFall universal-psycho-enfant presentation is to Children's Dentistry.

Dr. R. G. Ellis was the guest clinician at our second meeting and gave as his subject "Amalgam and Silicate in General Practice: Their uses and abuses". It was apparent that the purpose of his effort was to show how the life expectancy of silicate and amalgam restorations could and should be extended. On the one hand he enumerated the various causes responsible for failures; poor cavity preparations, faulty manipulation of materials etc. He then submitted what seemed a very logical technique, obviously the result of studied observation and experience. We especially noted the fact that in the handling of questions from his audience Dr. Ellis showed not merely tolerance but rather respect for the opinions of other dentists. In addition Dr. Ellis presented some beautifully coloured still pictures which were synchronized with and illustrated the "why and how" of his techniques. At the dinner Dr. J. F. Giffin, member of the Board of Directors of the Royal College of Dental Surgeons, mentioned the fact that a recent survey had been made of the outstanding dental colleges on the continent. Dr. Ellis was chairman of the committee whose findings were incorporated into a detailed report. This procedure apparently was taken, in order to be prepared to submit plans for the building of a really great dental school which would be suitable for the most exacting post war demands.

The efforts of the local Public Dental Health Committee under the chairmanship of



DR. H. G. MARSHALL
President of London Dental Society

Dr. H. G. Marshall apparently have met with approval because the members were all unanimously re-elected. A very popular feature of the year's activities has been the introduction of a luncheon study-group, held every second Thursday at the Y.M.C.A. Our president is chairman and deserves credit for lining up some really interesting subjects for study and discussion. Three more feature meetings will complete our year, namely: The Dr. Emmett Beckley prosthetic clinic; the exodontia clinic by our own Dr. Fred Kennedy and the usual closing chapter which takes the form of the June Golf Tournament.

Captain George W. Bean, M.C.
Killed in Action

It is with deep regret we record the death of Capt. George W. Bean, son of Lt.-Col.

Harvey G. Bean and Mrs. Bean of Toronto.

On graduation from University of Toronto Schools, at the age of 19, he enlisted with the Queen's Own Rifles and proceeded overseas. Later he returned to Canada for an Officer's Training Course which he completed in 1942 and immediately joined his unit again in England.

He took part in the invasion of Normandy; in action there he was seriously wounded. In this action he won promotion to Captain and the Military Cross. Field Marshal Montgomery himself presented the decoration. In September last, having recovered from his wounds, he rejoined his unit. And now—he has made the supreme sacrifice. Indeed he was a "worthy son of a noble sire". To his father who has served too, throughout the war, in England and now in Canada as District Deputy Dental Officer for M.D. No. 2 in Toronto and to his mother, sister, brother, dental families throughout the land extend their sympathy.

Hamilton Dental Society

The February meeting of this society was held in the Royal Connaught Hotel with Dr. Allan J. Quick presiding. Dr. Emmett Beckley, of St. Joseph, Missouri, was guest clinician and essayist at both an afternoon and evening session. Dr. Dick Flach presented Dr. Beckley to the members of the society, who then proceeded to discuss and illustrate his methods of complete denture technic. In the evening he projected 1,600 feet of coloured motion picture film covering his entire technic and illustrating some of his results.

Dr. Dick Hyde, of Hagersville, expressed appreciation of the Hamilton dental group to their guest.

Dr. R. G. Ellis Addresses Royal Canadian Institute

It is always a mark of distinction to be invited to address the Royal Canadian Institute. Dr. Ellis, Professor of Clinical Dentistry, University of Toronto, was given this high honour and he gave his lecture entitled "Your Teeth and Your Health" on March 10 in Convocation Hall. The lecturer won for himself loud praise and acclaim from laymen and colleagues alike who were present to hear him.

The material was splendidly arranged, illustrated by lantern slides in colour, and presented in great clarity and simplicity. Dr. Ellis is to be commended for this splendid effort on behalf of his colleagues in dentistry.

Dr. Fred J. Conboy Honoured

A group of about one hundred representative Toronto citizens attended a complimentary dinner to ex-Mayor F. J. Conboy at the Albany Club on March 7. The function was arranged by Dr. Arnold D. Mason, Dean of the Faculty of Dentistry, University of Toronto. Guests at the head table with Dean Mason and Dr. Conboy were: Mayor Robert H. Saunders, Hon. Dr. H. J. Cody, President, University of Toronto, Mr. E. W. Bickle, President, Toronto Board of Trade, Dr. Sydney Smith, President Elect, University of Toronto, Dr. Fred Williamson, President, Ontario Dental Association, Dr. Harold G. Campbell, President, Board of Royal College of Dental Surgeons of Ontario, Mr. R. A. Stapells, Col. O. S. Hollinrake, Mr. J. C. Macfarlane, Hon. George S. Henry, Mr. R. C. Berkinshaw and Mr. George Pepall.

Toastmaster Dr. Mason spoke fittingly of Dr. Conboy as did Mayor Saunders and Mr. Bickle. President Cody presented an address of eulogy indicating some of the honoured guest's private and public achievements. In reply, Dr. Conboy thanked his friends for the honour done him and gave a splendid address discussing influences that set the course of world affairs. It was a most enjoyable evening.

Honorary Degree for Dr. Ashley W. Lindsay

The Senate of the University of Toronto has approved that Ashley W. Lindsay, D. D. Sc., M. Sc. (Dent.), have the honorary degree of LL.D. conferred upon him at the regular Convocation on June 7th, 1945.

Dr. Lindsay received the degree of Doctor of Dental Surgery, University of Toronto, in April, 1907. In October of that year he went as a dental missionary to China to the West China Union University at Chengtu. He was appointed the first dean of the Faculty of Dentistry in that University in 1920 and he still holds this position. During session 1935-36, when he had a year's furlough, he did post-graduate work at the Faculty of Dentistry,

University of Toronto, upon which he was awarded the degree of Master of Science in Dentistry.

From 1936 to 1939 Dr. Lindsay served as vice-chancellor of West China Union University but the combined duties of this office and the deanship were too heavy and he surrendered the vice-chancellorship to devote all his time to furthering dental education.

Dr. Lindsay has been a member of the Committee on Dental Education in China since its inception and has served in an advisory capacity to the Minister of Education in the development of a system of dental education suitable to China.

NOVA SCOTIA:

Halifax Dental Society

The monthly dinner meeting of this Society was held at the Nova Scotian Hotel on Jan. 4. Thirty-one members were present including two speakers. Dr. O. L. Croft, the President, was in the chair. Following the dinner, the meeting was addressed by two officers of the Royal Canadian Navy, Surg. Comdr. D. H. Sharkey, R.C.N.V.R., and Surg. Comdr. Graham, R.C.N.V.R. The officers spoke on the subject "Penicillin", Surg. Comdr. Sharkey describing the theoretical side and Surg. Comdr. Graham the more practical aspects of the drugs application with reference to extraction cases.

W. C. O.

BRITISH COLUMBIA:

Vancouver Women's Auxiliary to the Canadian Dental Corps, Annual Report 1944-1945

The annual meeting of the Vancouver Women's Auxiliary to the Canadian Dental Corps was held in Canadian Memorial Hall on January 8.

Mrs. B. Lundahl, retiring president, occupied the chair for presentation of reports, and in her address expressed the pleasure she had received from her work with the executive and members during the past two years as president of the Auxiliary. She left the office with happy memories and thanked the members for their work and co-operation.

Mrs. R. H. Colbourne gave a very inter-

esting report on the activities of the Auxiliary for the past year.

Mrs. E. J. Hill reported that the sum of \$1,210.00 was raised. This money was realized through a garden party and miscellaneous sale held at the home of Mrs. E. S. Harris, bringing in \$170.00, a raffle \$235.00, a coffee party and lecture by Mrs. O. Leslie \$50.00, a cabaret dance \$320.00, and a rummage sale, \$125.00. The balance was made through fees, donations, telephone bridges, talent money, and the sunshine fund.

Mrs. H. E. Simmons reported an increase in membership, there now being 76 enrolled. Several new members joined after the luncheon which was held during the Convention of the B.C. Dental Association.

Mrs. D. Hyslop stated that over 80 articles had been knit and twenty-two dozen handkerchiefs made.

Mrs. G. G. McKenzie reported that parcels twice during the year, cigarettes each alternative month and scrap books made by the Auxiliary, under the convenership of Mrs. C. French, were sent to all officers and men in the corps serving overseas, including India. Canned goods were sent to those serving in Jamaica and Newfoundland; comforts were sent to those in the Outpost stations.

Mrs. E. F. Allen reported visiting and giving gifts to the men departing for Active Service.

Numerous thank-you letters were received from the men expressing their appreciation for the work being done for them.

Mrs. H. A. Simmons, on behalf of the Auxiliary made a presentation to Mrs. B. Lundahl, under whose faithful and diligent leadership, during the past two years, much of the success of the Auxiliary's work is due.

Members elected to serve on the Executive for the ensuing year are:

Hon. Pres., Mrs. A. W. Smillie.

President, Mrs. E. G. Bryant.

1st Vice-Pres., Mrs. W. J. Nesbit.

2nd Vice-Pres., Mrs. H. E. Simmons.

Recording Sec., Mrs. J. Gansner.

Corresponding Sec., Mrs. D. Hyslop.

Treasurer, Mrs. O. R. Hougen.

Press Reporter, Mrs. M. Sutherland.

(signed) Margaret Hornibrook.

Vancouver Dental Society

The regular monthly dinner meeting of the Society was held in Hotel Vancouver on February 6.

The President, Dr. Norm. Scott was in the chair.

The matter of the Rehabilitation of Female Members Discharged from the Armed Services again came up for discussion. The following resolution was presented by the Executive.

"Resolved that the Society recommend to the Canadian Vocational Training of the Department of Education and Labor of B.C. that those discharged persons seeking to train for the position of dental assistant be advised to attend a dental assistant or hygienist course in a recognized dental school."

This motion was adopted by the Society.

A number of very interesting letters were read from members in The Canadian Dental Corps to whom cigarettes had been sent at Christmas time.

Dr. Ellen Stark Elliott, a graduate of the Royal College of Dental Surgeons, Toronto, was elected to membership in the Society.

The guest speaker of the evening was Dr. T. W. Hammond of Tacoma, Washington, who presented a chair and table clinic on "Impressions for Full Upper and Lower Dentures," emphasizing lowers in particular. Dr. Hammond's clinic was well received and appreciated by one of the best attended meetings the Society has had for some time.

ALBERTA:

Calgary Dental Society

At the February meeting of this Society, Dr. R. R. McIntyre of Calgary gave a very instructive talk, which he entitled "Orthodontic Diagnosis for the General Practitioner."

Dr. McIntyre listed many of the conditions which may be observed early, by the man in general practice. With the aid of models, he demonstrated the ease with which many of these conditions may be corrected, or prevented, if recognized in the early stages, and the dire results caused by neglect and failure of diagnosis.

He showed two of his recent cases, in which he had used a new, soft rubber appli-

ance, for final correction and retention. He was very enthusiastic about the results to be obtained by the "Positioner," though he warned that the appliance must be used with care, or damage could result.

Another interesting appliance was a very simple inclined plane, for correction of faulty anteriors.

He concluded his talk, by distributing mimeographed copies of instructions for measurements, to forecast the amount of space that would be required, when the permanent incisors erupted.

Edmonton Dental Society

The annual "Ladies Night" of this society was held at the MacDonald Hotel on February 2 and took the form of a banquet and dance. It was one of the best events in the history of the Society. The committee in charge of the arrangements was Dr. C. H. Lipsey, Dr. Don Hawkins, Dr. J. Cecil Ward and Dr. Phil Kendal.

Seated at the head table were Dr. and Mrs. C. H. Lipsey, Dr. and Mrs. Graham Huckell, Major and Mrs. A. McEwen, Dr. and Mrs. H. R. McLean.

Dr. C. H. Lipsey, President of the Society, proposed the toast to the King. Dr. Graham Huckell representing the Academy of Medicine referred to the very cordial relationship which exists between the two professions in Edmonton.

Major A. McEwen proposed the toast to the ladies and Mrs. H. R. McLean responded.

During the banquet Miss Shirley Neher, well known Edmonton artist, pleased the guests with her well chosen repertoire of songs. Mrs. Bartley and her orchestra supplied the chamber and dance music.

Following the banquet, the members of the Society were joined by the dental assistants, members of the Graduating Class in Dentistry, and representatives of the dental supply houses in a very enjoyable dance.

Calgary Dental Nurses

The fifth meeting of this Association, held at the Herald Building proved very interesting as Mr. Edwards and Mr. Harvey of Inghram and Bell showed films on Hospital Sterilization.

The importance of correct sterilization

was stressed, and proved very informative as to the correct preparation and length of time necessary for thorough sterilization.

MANITOBA:

Winnipeg Dental Society

The Winnipeg Dental Society's January meeting was unusually well attended to hear Dr. Daniel Listiak's ideas about full dentures produced from the Fournet Tuller impression technique. Dr. Listiak is a lecturer with the Division of Full Denture Prosthesis in the School of Dentistry at Minnesota University. His talks accompanied by moving pictures, showing the various stages of construction, were exceptionally well put together and informative. This part of the program was presented on Monday afternoon of January 22, and after dinner, the evening program included Impressions for Partials, Clasps and their Functions, Survey of Casts, Determination of Guide Lines

and Diagnosis and Designs. Altogether it was a several weeks course given in a few hours. However one always gets value received for the time spent if even one new worth while idea is retained. One notices over the years that the subject of dentures generally attracts the largest attendance, over 80 being out for this occasion.

This meeting of the Society was held in the Medical Arts Bldg's Club Rooms and was presided over by the President, Dr. W. J. Robb who presented Dr. Listiak, on behalf of the Society, with one of our famous Hudson's Bay blankets.

We Add Our Congratulations

Air Force Headquarters at Ottawa announced on February 19 that Sqdn. Ldr. J. R. Dow, D.F.C. and bar, of Winnipeg, son of Dr. James A. Dow has been awarded the Distinguished Service Order.

EMPIRE NEWS

GREAT BRITAIN:

Teviot Committee Proposes Comprehensive Dental Service

The Inter-Departmental Committee on Dentistry under the Chairmanship of Lord Teviot has published an Interim Report to assist the Ministers of Health in their discussions of legislative proposals for the new health service as to the manner in which the dental aspects of such health service should work.

There was before the war, according to the evidence given by responsible witnesses, no lack of dentists over the whole of the country. This is to be considered in relation to the demand for treatment. The need for treatment is another matter. If the demand for treatment arose to near equality with the need, then there would be a shortage of dentists unless the numbers had increased *pari passu*.

If an annual demand rate of 10 to 20 per cent were the order in the next few years and if vigorous measures are taken to make

dentistry attractive as a career, the Committee foresee no great shortage.

Two factors, it is stated, depress the public demand for dental care. The greater is lack of appreciation of the importance of dental health and the lesser is lack of means. It is desired, therefore, to divorce dental health care from questions of means and thus to begin to build up demand; then can come the longer process of increasing public enlightenment.

The Committee unanimously recommend:

1. *A comprehensive dental service* to form an integral part of, and to operate simultaneously with, the Government's National Health Service. Although the shortage of dentists might mean that for some time the service would not be wholly adequate, it should be equally available to all who wanted to use it, and be paid for by the community as a whole.

2. *A general dental practitioner service* broadly analogous in principle and structure to the proposed general medical practitioner

service of the National Health Service. Dental health centres on experimental lines, either separate or, preferably, as part of general health centres, should be set up in suitable areas; but there should be no compulsion either on dentists to work in them or upon patients to attend for treatment at them.

3. A special effort to improve the teeth of expectant and nursing mothers, children and adolescents: the school and child welfare authorities should provide treatment for these "special classes" and should encourage them to accept treatment when needed.

Further points from the report are:

Freedom—No dentist should be compelled to enter the public service; he should

be free to leave it at any time he wishes; and he should have the right to give whole-time or part-time service.

Patients must also have free choice and be able to change their choice if they wish. There should be no restriction on the right of anyone to seek dental advice or care by private arrangements or by private fee. The object should be "a service equally available for all, but not compulsorily imposed on any."

Expert Advice.—Full use should be made of expert dental opinion in the planning and administration of the public service, both centrally and locally; and the body with whom practitioners in any general dental practitioner service are in contract should be a dental body.

GENERAL NEWS

Governor Warren (R) of California Advocates Compulsory Health Insurance

In a press conference on December 29, the Governor of California stated that he will sponsor a measure at the coming meeting of the State Legislature to provide prepaid medical care for all citizens of the state. The program would be financed by employer-employee contributions. Self-employed and others would be included through a contributory system not yet announced.

"I am not for state medicine. I don't want to change the professional relationship of the doctor and the patient. I want freedom of choice to exist for both. But we do want to spread the cost of medical care by compulsory contributions of workers and industry, both of whom will be the direct beneficiaries of such assistance. My information is that we can do the job by a 1½% contribution from each employee and employer.

"I am sure," continued the Governor, "that there will be a lot of people startled by the thought of compulsory health insurance, but I think we are always startled by doing new things even though we have known they were necessary."

In citing the need for compulsory health insurance, Warren estimated that 1,500,000 Californians were in sub-standard health. He

based his estimate on Selective Service figures which showed more than 374,000 youths between 18 and 36 had been rejected for physical and mental deficiencies. These figures for the state, he declared, "were an amazing and shocking story."

Another comment made by Warren is significant: "Voluntary health insurance systems will not work because everybody will not join." He could have strengthened this statement by adding that all voluntary plans include restrictions that are far short of the goal, "complete medical care." He could have mentioned their variance in premiums and benefits, the inability of a large portion of our people to pay any premiums, and the fact that premiums are paid in the main by those who can best afford the present system of fee per service.

First District Dental Society of New York

Excerpts from Outgoing President's 1944 Report

This Society has a membership of 3700, a budget of \$79,000 and a roster of 40 standing and special committees. The War Activities Committee collected almost \$9000 for its Victory Fund. The Postgraduate Committee has arranged 56 courses for the winter and spring season and most of the classes are oversubscribed.

The Mayo Memorial

Plans for erection of a medical research, teaching and administration centre as a memorial to Dr. William J. and Dr. Charles H. Mayo have been announced by the committee of founders headed by Dr. Donald J. Cowling.

The Mayo Memorial Building is to be erected on the University of Minnesota medical campus in the centre of the University Hospitals quadrangle. It is to be a twelve-story building constructed at an approximate cost of \$2,000,000.

A statewide appeal for contributions will be started early this year under direction of the committee of Founders. William and Charles were known as the "country doctors for the world"; so to give friends the world over an opportunity to contribute to their memorial, the appeal for contributions will be carried on nationally and, if war conditions permit, internationally.

Destruction of Books

One of the greatest destructions of books and means of making books in the history of the world occurred a little over a year ago, on December 3, 1943, when Allied air forces, following an attack about two months earlier, dropped 1,500 tons of bombs in twenty-five minutes on the heart of Leipzig, Germany.

Leipzig has been noted throughout the world for its "Book City" in which a large fraction of German publishing and printing was centered. The University Library, founded in 1543, contained more than a million volumes. The Deutsch Bücherei, a depository of all German language books published since 1913, contained nearly two million volumes.

The destruction of the heart of Leipzig was not retaliation for the blasting of Warsaw or the wanton bombing of civilians and cities in Holland and Belgium, or for the deaths of thousands of English women and children from German bombs, or for scars on St. Paul's Cathedral and the Houses of Parliament and Westminster Abbey and the Greenwich Observatory. Leipzig is a great business and manufacturing centre in the heart of Germany from which eight railroads radiate in various directions. To destroy its munitions factories and to cripple its

transportation systems are regarded as legitimate military measures. To withhold the explosive and the incendiary bomb would be to sentence, indirectly, many young German and Russian and English and American men to death on battle fields who otherwise might survive the war.

Before the rise of Hitler there were in its area known as "Book City" about 550 publishers, 320 booksellers, and more than 150 concerns doing both publishing and selling.—A.A.A.S. Bulletin.

The Little Flower Gives New York Dentists the Jitters

by MICHAEL PEYSER, D.D.S., New York
Condensed from Oral Hygiene, Jan. 1945

A situation has arisen in New York City, which not only greatly disturbs the local dentists but which eventually may affect every dentist in the United States; especially those practicing in the industrial areas. Mayor Fiorello LaGuardia has been telling the people that he is planning to give New York City employees (about 200,000 in number) and the labour union members (numbering perhaps a 1,000,000 or more) a voluntary cooperative group health service.

The Mayor says his plan will give the subscribers and their families a complete medical, surgical and hospital service at a cost of 4 per cent of their salaries; one half of which is to be contributed by the worker, the other half to be contributed by the employer. It is to be entirely voluntary.

The Mayor, as this is written, has revealed that:

1. He has 80 sponsors, consisting of the most influential and powerful citizens in business, industry, labour unions, educators and members of the medical profession. Among the incorporators were attached the signatures of Henry J. Kaiser, the late Alfred E. Smith, and the late Wendell L. Willkie.

2. He has already received \$300,000 in grants from two welfare foundations for the purposes of organization and he knows where to get more.

3. He expects to have over 1,500,000 subscribers to his plan within three years.

4. He has so designed the plan, and is so confident of its success, that he is certain

that his plan will act as a pattern for a National Health Plan.

He has declared openly that he has ignored the five county medical societies in the city because, as he says, they are opposed to his idea and do not represent the rank and file who are whole-heartedly in favour of the plan. Moreover, the Little Flower boasts that he has already secured the backing of some of the most eminent physicians in the city.

Up to October sixth, the Mayor completely ignored dentistry in his weekly communiques; but on that date in an address before the American Public Health Association, he said that dentistry would most certainly be included in his plan, as it rightfully should, but it would not be a part of the service offered until the cost of the dental services "has been computed."

Anyone with a little imagination can foresee that the Mayor will by-pass the dental societies as he has the medical societies; will get dental "spokesmen" who will act independently and despite the wishes of the other members of their societies; that he will get the plan started and operating; and that, whether successful or not, *the plan will act as a pattern for a National Health Plan.*

Whether the plan is good or bad, or whether we like it or not; this situation does affect us, especially us in New York City and other industrial areas.

The liberal dentists in New York, and for that matter all over the country, are on the spot. They see the danger and its implication. They know that destructive criticism or offers of cooperation will not solve this problem. They know that only a sincere, practical, and affirmatively constructive declaration of policy, implemented by a detailed program, and offered as an alternative, will get public support and the attention of Mayor LaGuardia and maybe his acceptance of it.

Of course, there will be those who will repeat the chant:

"Research, education, children's dentistry; research, education, children's dentistry."

The worker and his wife say, "We cannot wait for the research; we don't need to be educated any further; and with all the talk about children's dentistry, the draft records

show that the profession's program on children's dentistry has been only a promise, a hope, and a myth. As for ourselves, we need health to work, so we can raise our children. Health includes oral health. Give it to us at a cost we can pay. The Mayor promises us just that. You talk and promise us nothing."

The Mayor is a realist. He may be wrong. But the Mayor with his power and his plan can be wrong and yet succeed. While the professional men may be right when they say you cannot give good dentistry at the low fees the Mayor may demand, they, nevertheless, are wrong in the eyes of the "spokesmen," the social service workers, and the public.

Let us not forget that pattern for a National Health Plan. That idea has been buried twice in Congress. But let us not delude ourselves. So long as there remains the problem of adequate health care for all the people, the idea "and the trend for it will persist. Set up local patterns in different parts of the country and have some that are successful and you will surely have a National Health Plan in the future, sooner than you expect.

To fight this trend is futile and foolish! A wiser course would be to meet it, cooperate with it in our own way. Only by our planning can we protect the public and ourselves.

One Hundred Years in the Conservation of Life . . . 1845 - 1945

This year Sharp & Dohme is celebrating its 100th anniversary. The history of this great organization, which is now so well and favourably known to the drug trade in all quarters of the globe, speaks volumes for the foresight and industry of the early founders of the business.

Sharp & Dohme developed from a small drug store operated by partners Alpheus Phineas Sharp and Louis Lohme located in Baltimore, Maryland.

Early recognizing the great need for standardized pharmaceutical products that could be supplied to the drug trade in all parts of the country, these two gentlemen pur-

chased a building adjoining their store and started the manufacture of an extensive line of quality pharmaceutical products which were in active demand. The business grew rapidly and with the outbreak of the Civil War facilities were taxed to the utmost to meet Army medical supply requirements.

In 1929 Sharp & Dohme acquired the well-known biological laboratories of the H. K. Mulford Company.

Recognizing the importance of research, Sharp & Dohme maintains a large well-trained technical staff devoting their entire time and attention to research. The Research Laboratories are housed in a new building equipped with all the modern devices for carrying on this important work. It was in these laboratories that they pioneered in the synthesis and study of Sulfadiazine and Sulfamerazine and also developed 'Sulfasuxidine', 'Sulfathalidine', 'Propadrine' Hydrochloride, the family of hexylresorcinol products, and the sedative and hypnotic 'Delvinol' Sodium.

In addition to these products, this research group also developed the process of lyophilizing biological products, particularly dried blood plasma which has been one of the most important single factors in reducing mortality in our armed forces.

Distribution of Sharp & Dohme products is now well established throughout the world. Branches are located in twenty-two leading cities in the United States and in many countries, and subsidiary companies are operating in England, Mexico, and South America.

In Canada, the sale of Sharp & Dohme products was carried on through sales agents for many years, but in 1940 Sharp & Dohme (Canada) Ltd. was established. Manufacturing and distribution are now centralized at Toronto. Growth has been constant and rapid, the amount of floor space having been increased to three times the space originally occupied in order to take care of the larger volume of business.

With Sharp & Dohme's long experience in connection with the handling of public health problems dating back to 1845, their anniversary this year can well be termed "A Century in the Conservation of Life."

Price Cut Announced for Civilian Penicillin

Ottawa, Feb. 5—A reduction in the price of penicillin to Canadian hospitals for civilian use is announced by Chemicals Controller E. T. Sterne. The new price will be \$2.85 per ampoule as from February 1.

Originally penicillin sold for \$6.05 per ampoule and recent prices have been \$3.50. The price as now announced will be on a parity with those in the United States.

Mr. Sterne said the lowered price follows a reduction in the selling price by the Canadian commercial manufacturer of Penicillin (Merck & Co.) which at present is supplying the entire civilian market. Increased production and improved manufacturing methods permitted the reduction.

The entire output of two government-owned penicillin plants is absorbed by purchases by the Munitions Department for the armed services.

Merck & Co.'s penicillin plant was the first in the British Empire to use the deep fermentation method on a commercial scale and it was constructed and put into operation in the record time of six weeks.

30 Per Cent of Men Under 38 Unfit for Armed Services in U.S.A.

The Selective Service System announced recently that, on December 1, 1944, 70 per cent of all registrants under 38 years of age had been physically examined and 30 per cent of these had been declared unfit for general military service. Of the 22,086,000 total living registrants on that date, 15,217,000 had been examined and 4,560,000 were rejected.

Surgeon General Parran Asks for National Health Program

A national health program that would insure adequate health services to every person in the United States was advocated January 19 by Thomas Parran, Surgeon General of the Public Health Service, Federal Security Agency.

"We in this country want nothing less than equal health opportunity for every citizen," Dr. Parran said. "Medical science to-

day is extraordinarily complex. The provision of adequate health care involves a great deal more than paying doctor's bills, basic as that is.

"Financing of medical care of the individual as a part of the program for the total health care should include some arrangement for prepayment. For the individual family, I believe that the risks of illness should be met on a national basis, through insurance or public taxes, or a combination of both. Social insurance thus can contri-

bute to the advancement of national health by spreading the cost of illness and by providing the wage earner compensation in lieu of wages when he is ill and unable to earn. Social insurance, however, no matter how complete, does not constitute a national health program. It is only part of it, and contributory toward it.

"Increased Government funds for research should be available through grants-in-aid to scientific institutions as a part of the national health program."

IN MEMORIAM

Charles Edwin Biehn of Windsor, Ontario, aged 67, died in hospital on February 7, after the car he was driving was in collision with a transport truck.

He was graduated from the Royal College of Dental Surgeons of Ontario in 1897. He practised at Sshelburne for a short time, then moved to Chesley. In 1920 he set up practice in Windsor where he remained until his death.

Dr. Biehn was a member of the Board of Education at Chesley for seventeen years, and was school dental officer on the Windsor Board of Education. He served on the Board of Directors of the Royal College of Dental Surgeons from 1903 to 1907, acting as Treasurer 1905-07. Dr. Biehn is survived by his widow; two sons, Major J. Telford Biehn, R.C.A.M.C. overseas, and Corporal Walter C., Georgetown; two daughters, one brother and two sisters.

Thomas Henry Wylie of Toronto, Ontario, died early in February. He was graduated from the Royal College of Dental Surgeons of Ontario. He was an enthusiastic lawn bowler and curler. He was a charter member of the Rusholme Lawn Bowling Club, a member of the Lakeview Curling and Bowling Club and the Oakwood Club. In 1931 he was on the team of Canadian Bowlers which made a successful tour of the British Isles. He was a past chairman of the Ontario bonspiel, and was a joint winner for two successive seasons of The Globe Scotch Doubles.

A former elder of Chalmers Presbyterian Church, Dr. Wylie was latterly a member of the St. Clair Avenue United Church.

Dr. Wylie is survived by one daughter and two sons.

D. A. Black of Kingston, Ontario, aged 80, died on December 3. He was graduated from the Royal College of Dental Surgeons of Ontario in 1890. He practised at Elora for one year and then moved to Kingston where he practised until his death.

He served as Alderman for two years. During his younger years he took an active part in yachting and was elected commodore of the Kingston Yacht Club several times. He was a member of St. John's Lodge and attended at St. Andrew's Church.

Dr. Black is survived by his widow, two sons and one brother.

Wilton Algernon Ashley of Napanee, Ontario, aged 74, died at his home on January 26. He was graduated from the Royal College of Dental Surgeons of Ontario in 1911 and began to practise with his father.

He was a member of the Trinity United Church official board, a member of Union Lodge A. F. and A.M., and of the Canadian Order of Foresters.

Dr. Ashley is survived by his widow and one sister.

. . . SECTION FRANÇAISE . . .

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516, est, rue Sherbrooke, Montréal.

Notre Faculté de Chirurgie Dentaire Classée "A"

Le 23 janvier, nous apprenions par les journaux cette nouvelle réjouissante que nous aurions aimé commenter tout de suite dans notre édition de février. Mais il était trop tard. Encore que cet événement ne possède plus la saveur d'une primeur, il nous est agréable de le signaler de nouveau à l'attention de tous.

Cette classification pour nous offre une importance relativement considérable à cause de son origine et de sa signification.

SON ORIGINE.

Trois Universités desservent l'Etat de New York peuplé de 13,000,000 d'habitants. Cela ne saurait suffire. Cet Etat doit accepter des professionnels de l'extérieur. Comme la valeur de l'enseignement est loin d'être uniforme dans tout le pays, New York entend bien ne recevoir chez lui que des dentistes dont la formation se rapproche le plus de son propre idéal.

Peu au courant de l'organisation qui classe ainsi les maisons d'éducation susceptibles de leur fournir des sujets, j'imagine que le "State Board" joue un peu le rôle de notre Conseil d'Instruction Publique, et qu'il a pleine et entière juridiction sur tout l'enseignement dans l'Etat. On comprend facilement que cet organisme ait formulé une série de conditions en vue de savoir quelles Universités pourraient fournir des professionnels aptes à la pratique de la Chirurgie Dentaire, dans l'Etat de New York.

SA SIGNIFICATION.

Toutes les Universités Etatsuniennes, il semble bien, ne possèdent pas les qualités requises pour être reconnues par l'Etat de New York. On ne trouverait la confirmation dans le fait que sur trente-huit écoles américaines de Chirurgie Dentaire, quinze seulement reçoivent l'honneur d'être classées (A).

Comme les standards exigés par ce "State Board" ont la réputation d'être les plus élevés, nous pouvons donc nous réjouir de voir notre Faculté classée "A".

Cela ne veut pas dire que notre enseignement de la chirurgie dentaire ait, en six mois, atteint le summum de l'efficacité désirée. En si peu de temps c'eût été impossible dans les circonstances présentes. On peut toutefois conclure que les enquêteurs du "State Board" ont trouvé les perspectives assez brillantes pour fonder de grands espoirs sur notre Faculté.

En effet nos étudiants ont reçu la plus belle formation qu'on puisse exiger d'eux avant leur entrée à l'Université. Le nouveau programme à l'essai devra peut-être subir d'importantes modifications, mais n'est-il pas juste d'espérer que leur culture universitaire continue sur une aussi haute échelle et reste ainsi en rapport avec la perfection du côté matériel de la Faculté.

La Rédaction

Historique de l'anesthésie Chirurgicale

d'après le Dr J.-B. ROTTENSTEIN (1)

L'anesthésie artificielle est sans contredit la plus grande conquête scientifique de notre siècle et la plus grande découverte qui ait été faite en médecine, à l'exception peut-être de celle qui a illustré Jenner, la vaccination. Grâce à l'anesthésie, les terribles douleurs qui accompagnaient les grandes opérations et les rendaient si redoutables n'existent plus; grâce à cette découverte bienfaisante, le patient évite les angoisses et les douleurs, et le chirurgien qui opère sur un malade tranquille et endormi agit avec plus de dextérité et de rapidité. C'est seulement depuis cette admirable invention que le "*cito, secure, jucunde*" de Celse est devenu une vérité, et que la pratique des opérations chirurgicales, même les plus graves est facilement acceptée par les malades.

Comme tant d'autres découvertes, celle de l'anesthésie est due à un heureux hasard. Mais il ne faut pas conclure de cette circonstance que nous sommes dispensés du juste tribut d'hommage et d'admiration qui est dû à son inventeur. Non pas, assurément! Les faits que la fortune nous jette aveuglément et que le vulgaire laisse inaperçus, le génie les examine, les commente, les pénètre de sa puissante originalité et en tire des conclusions inattaquables sur lesquelles s'appuient de nouvelles et indestuctibles théories. Telle a été l'origine de l'anesthésie chirurgicale.

Non-seulement nous ne voulons rien enlever au mérite de Horace Wells, l'immortel auteur de cette grande découverte, mais tous nos efforts tendront à lui restituer son titre d'inventeur qu'on a souvent cherché à lui enlever par des attaques ignorantes ou intéressées. Deux hommes, dont le nom a souvent retenti dans les annales de l'anesthésie, ont cherché à disputer à Wells le mérite de son admirable découverte. Nous avons nommé Morton et Jackson, dont les noms sont peut-être plus connus sur le continent que celui du modeste dentiste de Hartford. Ces deux hommes ont en effet pris part aux événements qui ont accompagné l'invention de l'anesthésie. Dans ce chapitre, nous avons pour but de montrer le rôle qu'ils ont joué à cette époque et de jeter sur ces événements un jour nouveau. Nous nous efforcerons d'être impartial et de satisfaire à la fois les justes exigences de l'histoire, qui veut que la

(1) Le Monde Dentaire.

vérité soit connue, et celles de la justice qui veut que chacun recueille les palmes qu'il a méritées.

Il serait peut-être intéressant de suivre, à travers les siècles, la marche et les développements, non pas d'une méthode anesthésique, mais des efforts qui ont été faits depuis l'enfance de la chirurgie pour atténuer les douleurs qui accompagnent inévitablement les opérations. La pierre de Memphis, la mandragore et le ma-yo des Chinois n'ont pas plus de rapports avec l'anesthésie que les machines volantes des *Mille et une Nuits* n'ont de rapports avec nos aérostats. Le mesmérisme, aussi bien que l'hypnotisme, a depuis longtemps dit son dernier mot et ne trompe plus personne.

Il est du reste facile de voir, d'un seul coup d'œil, que les procédés préconisés autrefois pour atténuer la douleur pendant les opérations n'ont aucun rapport avec l'anesthésie telle qu'elle est pratiquée aujourd'hui. Tous ces procédés consistaient, non pas à *inhaler* des vapeurs et des gaz, mais à *ingérer* des substances plus ou moins toxiques dans le but de *stupéfier* le malade et non de l'*anesthésier*. Il n'est jamais question d'inhalation dans les écrits des auteurs anciens, à part toutefois le fait mentionné par Jehan Canappe dans sa traduction en français de Guy de Chauliac. Il s'agit de Théodoric, chirurgien fort remarquable du quatorzième siècle, qui avait appris de son maître, Hugues de Lucques, une méthode qui consistait à plonger les patients dans une certaine torpeur pendant les opérations de longue durée. Voici comment s'exprime Jehan Canappe dans sa traduction, qui date de 1538: "Mais aucuns, comme Théodoric, leur donnent médecine obdormitives qui les endorment afin que ne sentent incision, comme opium, succus, morellæ, hyosciami, mandragoræ, hedreae arborae cicutae, lartucae, et plongent dedans éponge et la laissent sécher au soleil, et quand il est nécessité, ils mettent cette éponge en eau chaulde et *leur donnent à odor* tant qu'ils prennent sommeil et s'endorment, et *quand ils sont endormis, ils font l'opération*. Et puis avec une autre éponge baignée en vin aigre et appliquée es narines, les éveillent, ou ils mettent es narines ou en l'oreille succum rutæ ou seni, et ainsi les éveillent comme ils dient."

Mais on ne trouve dans ce passage, si obscur du reste, aucun médicament qui possède, à un degré quelconque, des propriétés anesthésiques, et l'on peut affirmer que les malades, traités de cette façon par Théodoric, ne devaient nullement échapper aux douleurs inséparables d'une grande opération chirurgicale.

Ce court exposé ne prouve qu'une chose: c'est que la grande idée de notre temps, l'idée de faire aspirer aux patients un agent véritablement anesthésique pendant les opérations n'était pour rien dans les tentatives d'autrefois et que Horace Wells n'avait aucune connaissance des travaux des anciens lorsqu'il fit sa découverte. Nous démontrerons même plus loin que notre inventeur ne connaissait pas même les travaux de Beddoes, de Humphry Davy et autres expérimentateurs qui avaient déjà étudié et signalé les propriétés d'un des agents anesthésiques le plus fréquemment employés aujourd'hui, le protoxyde d'azote, mais sans avoir eu l'idée d'utiliser dans la pratique de la chirurgie les propriétés anesthésiques du protoxyde d'azote.

Lorsque Cavendish, Priestley, Lavoisier furent parvenus, après avoir triomphé de difficultés sans nombre, à séparer l'air et l'eau; lorsqu'ils eurent trouvé ces gaz sans lesquels la chimie moderne n'aurait pu faire de progrès, un grand mouvement eut lieu dans le monde scientifique. Les noms même d'*air vital*, d'*azote*, montrent quel genre d'influence on attribua à ces découvertes. Chacun crut voir dans ces nouveaux secrets arrachés si péniblement à la nature de précieux moyens de guérison pour les maladies contre lesquelles l'art de la médecine était jusqu'alors impuissant. C'est ainsi que Beddoes appliqua, dès 1795, dans sa *Medical pneumatical institution*, la vapeur d'éther au traitement de la phtisie pulmonaire (1).

(1) Le protoxyde d'ozote ne pas, que nous sachions, était appliqué dans le traitement des affections de poitrine depuis les essais de Beddoes. Il y a là une très intéressante étude à faire, et qui ne peut manquer d'être fructueuse pour la science et surtout pour la thérapeutique. Il est extrêmement probable que la protoxyde d'azote serait indiqué dans les cas où l'oxygène est aujourd'hui employé.

Beddoes avait besoin d'un homme intelligent pour la direction de son laboratoire, et, sur la recommandation de son ami Guilbert, il s'attacha le jeune Humphry Davy qui, des lors, fut chargé de préparer les gaz et d'étudier leurs effets sur l'organisme. En 1799, Davy publia une brochure sur le *protoxyde de nitrogène*, ou il exposa de nouvelles observations sur les effets de cet agent chimique. Il allait même jusqu'à dire que "le protoxyde d'azote pur paraissait jouir, entre autre propriétés, de celle d'anéantir la douleur; on pourrait probablement l'employer avec avantage dans les opérations de chirurgie qui ne s'accompagnent pas d'une grande effusion de sang".

L'idée était là; un pas de plus et la découverte de l'anesthésie était avancée d'un demi-siècle. Mais on ne s'arrêta pas de suite à cette idée, et les observations de Davy tombèrent dans un prompt oubli, d'où l'étude historique de l'anesthésie les a fait heureusement sortir.

Tel était l'état des choses quand le hasard amena Horace Wells à cette fameuse séance du 10 décembre 1844 chez le docteur Colton.

Laissons ici la parole à l'auteur américain Truman Smith (1), le premier qui ait eu une idée juste et une connaissance sérieuse de cette histoire, un peu obscure jusqu'ici, de l'anesthésie.

"Le 10 décembre 1844, demeurait dans la ville de Hartford (Vermont) un citoyen nommé Horace Wells. Né à Hartford, il s'y était établi à l'âge de 21 ans et y exerçait la profession de chirurgien-dentiste depuis un certain nombre d'années. C'était un homme à l'œil vif, à l'esprit fin, un penseur ardent, enthousiaste, digne de confiance en tout point, dont la constitution physique était aussi délicate que sa nature morale et intellectuelle était sensible. Jamais personne ne posséda la confiance d'une communauté plus pleinement qu'il n'avait celle de Hartford. L'inimitié lui était inconnue. L'amitié et l'estime s'attachaient partout à ses pas."

Dans la soirée de ce même 10 décembre 1844, Horace Wells assistait, avec sa femme, à un cours de chimie fait par le docteur Colton, pendant ou après lequel ce dernier administra au docteur Wells, à M. Cooley et à quelques autres personnes le protoxyde d'azote. M. Cooley, placé sous l'influence du gaz, fut extraordinairement excité (2); il roula sur le plancher et s'y livra à toutes sortes d'évolutions et de mouvements circulaires, pendant lesquels il se meurtrit les jambes en se heurtant contre les bancs, fait dont le docteur Wells prit note. Lorsque Cooley fut revenu à lui, Wells demanda si les blessures qu'il s'était faites lui avaient été douloureuses; il répondit qu'il n'avait nullement conscience d'avoir reçu aucune blessure; mais en relevant son vêtement le sang apparut en abondance. Wells se tourna immédiatement vers son ami, assis près de lui, et lui exprima l'opinion qu'on pouvait, en respirant ce gaz, devenir insensible au point de se faire arracher une dent sans éprouver de douleur. En rentrant chez lui il exprima de nouveau cette opinion à sa femme et la répéta encore à un confrère qu'il invita à examiner ce sujet le soir même.

Après être resté quelque temps à réfléchir sur cette matière, le docteur Wells déclara qu'il était résolu à prendre le gaz le lendemain et à se faire arracher une mauvaise dent (une forte molaire), ce qui témoigne en faveur de la netteté de sa théorie. "C'est bien! s'écria son ami, il est juste que nous commençons les expériences sur nous-mêmes." Le lendemain matin Wells appela le docteur Colton et lui exposa le fait qu'il avait observé en même temps que les remarques qu'il avait faites à ce sujet et l'invita à se munir d'un ballon du gaz pour cet usage, ce qui fut fait. Quand tout le monde fut réuni, Wells se plaça lui-même dans la chaise d'opération, Colton lui administra le gaz et, dès que le patient fut mis sous son influence, le confrère lui arracha la dent. Wells revenu à lui s'écria: "*Une nouvelle ère dans l'extraction des dents! Cela ne m'a pas fait plus de mal qu'une piqûre d'épingle.*"

Wells avait donc, le 10 décembre 1844, signalé le phénomène de l'anesthésie et

(1) An inquiry into the origin of modern anesthesia, by the hon. Truman Smith.

(2) On sait que le protoxyde d'azote ne détermine cette excitation que lorsqu'il est mélangé avec de l'air.

déduit toute une théorie confirmée par son heureuse expérience du lendemain. Tout est donc parfaitement clair et précis dans sa découverte: 1^o *idée théorique*, suppression de la douleur pendant les opérations chirurgicales; 2^o *idée pratique*, emploi par inhalation d'un agent anesthésique, le protoxyde d'azote. On ne peut donc reprocher à cet inventeur d'avoir manqué de netteté et de précision, aussi bien dans la conception que dans l'application de sa méthode d'anesthésie.

Le principal argument invoqué par les détracteurs de Wells est le suivant: ce dentiste a tout à fait abandonné sa découverte et l'a laissée tomber dans un complet oubli. Nous répondrons plus loin à la première attaque, et nous allons, dès à présent, réfuter la seconde.

Wells possédait cette générosité et cette expansion naturelles aux hommes de génie qui veulent faire profiter le monde entier de leurs découvertes, et il s'empessa de communiquer à un grand nombre d'amis l'invention qu'il venait de faire. Dans un mémoire publié en 1847, Wells s'exprime ainsi: "Demeurant à Hartford, je partis pour Boston au mois de décembre de cette même année (1844) pour y présenter ma découverte à la faculté de médecine; je la fis connaître d'abord aux docteurs Warren, Hayward, Jackson et Morton; les deux derniers se prononcèrent d'une manière négative, disant qu'ils ne pensaient pas qu'il fût possible de supprimer la douleur dans les opérations chirurgicales; mais ils furent d'accord tous deux que le *modus operandi* leur était entièrement nouveau." Nous verrons plus tard, dans le cours de cette publication, comment Jackson et Morton surent user de la confiance que Wells eut alors en leur loyauté.

Wells fit à Boston, en présence d'une nombreuse assemblée composée en grande partie de médecins et d'étudiants, une expérience publique. Il arracha une dent à une personne après lui avoir administré le protoxyde de nitrogène. Bien que cette expérience, selon les propres paroles de Wells, n'ait pas été couronnée d'un succès complet, elle fut cependant regardée par plusieurs des assistants, comme ayant partiellement réussi (1). La nouvelle du procédé de Wells se répandit assez rapidement, et l'anesthésie par le protoxyde de nitrogène devint bientôt d'un grand usage à Hartford. D'après les attestations du docteur Colton, les journaux de Hartford s'en occupèrent et firent savoir au public que le docteur H. Wells, chirurgien-dentiste, avait trouvé le moyen d'extraire les dents sans qu'il en résultât aucune souffrance pour le patient. Nous trouvons du reste dans le *Journal médical et chirurgical de Boston* un article du docteur Ellsworth sur cette question. Il y est dit que "le protoxyde d'azote a été employé dans un grand nombre de cas dans le but d'annuler la douleur pendant les extractions dentaires. L'opération n'a eu aucune suite fâcheuse". La priorité de la publication est donc également en faveur de Wells, et le fait d'avoir employé le protoxyde d'azote dans un grand nombre de cas prouve que son inventeur n'avait nullement abandonné sa découverte.

On pouvait supposer que l'homme qui venait de s'illustrer par une grande découverte, répandue dans deux grandes villes par de nombreux amis et par la presse; que l'homme qui avait appuyé sa découverte sur un grand nombre d'expériences heureuses, on pouvait supposer que cet inventeur serait à l'abri de toute attaque et que la propriété de sa découverte lui serait définitivement garantie. Eh bien, malgré la publicité obtenue par le moyen de la presse, malgré les faits nombreux qui attestaient la découverte de Wells, il s'est trouvé cependant deux hommes assez téméraires pour vouloir lui arracher le prix de ses travaux et pour s'arroger le titre d'inventeurs de l'anesthésie: assez heureux pour être regardés comme tels jusque dans ces derniers temps. Ces hommes, que nous avons déjà eu l'occasion de nommer, sont les docteurs

(1) L'insuccès de Wells en cette circonstance peut s'expliquer de plusieurs manières. En premier lieu, on peut supposer qu'il ait eu la mauvaise chance de tomber sur un de ces malades nerveux qui crient pendant l'anesthésie, quoiqu'ils n'éprouvent aucune douleur, comme cela a lieu souvent avec le chloroforme. On peut supposer également qu'il n'avait à sa disposition que des appareils très imparfaits et que le malade a inhalé de l'air en même temps que du gaz.

Jackson et Morton, les deux amis auxquels H. Wells avait d'abord exposé sa découverte.

Pendant les années 1841 et 1842 Morton fut l'élève de Wells qui exerçait la profession de dentiste à Hartford. Plus tard il se rendit à Boston, s'y établit et s'associa avec son ancien maître pour exercer la même profession. Des raisons que nous ne connaissons pas les forcèrent bientôt à se séparer. Morton n'en resta pas moins dans une certaine intimité avec Wells; il fut averti un des premiers de sa découverte et assista à l'expérience de Boston. Dans son mémoire présenté à l'Académie française des sciences, il dit que Wells vint à Boston dans le but d'expérimenter, qu'il assista lui-même à l'opération, mais que, le patient ayant poussé un cri de douleur, le public siffla et hua l'opérateur. Le docteur Taft, qui assistait également à l'opération, affirma avec serment que, quoique ayant eu un peu d'agitation pendant l'extraction de la dent, le patient, interrogé à son réveil, dit n'avoir ressenti aucune douleur.

Wells dit dans son mémoire: "Après avoir fait ma découverte, j'eus plusieurs entrevues avec Morton. Une indisposition prolongée m'ayant forcé d'abandonner ma profession, Morton me pria de lui apprendre à préparer le gaz que j'avais administré avec tant de succès à Hartford. Je lui dis de s'adresser au docteur Ch.-F. Jackson, ce dernier étant chimiste. Morton demanda ce gaz; Jackson lui donna de l'éther comme occasionnant moins de troubles. Et voilà, voilà les individus qui se proclament maintenant comme inventeurs (1)."

L'espace nous manque pour citer les nombreux témoignages à charge de Morton, que Truman Smith rapporte dans son livre. Ce qui en résulte, c'est que Morton n'avait pas la moindre connaissance de la chimie tout en ayant appris de Wells le procédé d'anesthésie. Ce qui n'est pas moins certain, c'est que Jackson, à qui l'entrevue avec Morton avait suggéré l'idée de dépouiller le véritable auteur de sa découverte, donna à Morton de l'éther sulfurique, et que ce dernier, le 30 septembre 1846, arracha une dent au nommé Eben Frost, endormi à l'aide de cet agent.

Les prétentions de Morton s'appuient sur le fait d'avoir préconisé l'éther sulfurique à la place du protoxyde d'azote, et sur le prétendu abandon qu'avait fait Wells de sa découverte. Mais nous démontrerons plus loin que l'introduction de l'éther n'était pas une invention et que Wells avait fait des expériences avec cet agent; quant à l'accusation d'abandon, rien n'est plus faux. Il est parfaitement prouvé que, peu de temps avant sa mort, Wells s'occupait encore d'anesthésie. Remplacer une substance par une autre et appliquer cette substance d'après un procédé pris à autrui ne saurait constituer une découverte. En outre, nous avons déjà dit que cette substitution même n'était pas nouvelle lorsque Jackson la communiqua à Morton. Les propriétés analogues de l'éther sulfurique et du protoxyde de nitrogène avaient été constatées dans un article du *Quarterly journal of sciences and arts* article attribué à Faraday et publié en 1818. Ce n'est donc pas même une innovation que cette substitution qui est la principale base sur laquelle s'appuient Morton et Jackson.

Dans un remarquable travail qu'il vient de publier (1) et qui contient un grand nombre de renseignements nouveaux sur cette importante question, M. Marion Sims attribue en grande partie l'honneur de la découverte à un chirurgien américain inconnu, du nom de Crawford Long. D'après le récit de l'éminent gynécologue, Long aurait employé l'éther sulfurique pour produire l'anesthésie chirurgicale le 30 mars 1842, plusieurs années avant Wells. Il résulterait en effet du témoignage de plusieurs médecins qu'un certain nombre d'opérations ont été pratiquées de 1842 à 1845 par Long pendant l'anesthésie; mais le résultat de ces opérations n'a pas été publié à l'époque où elles étaient pratiquées. Long exerçait alors la chirurgie à

(Pour bien comprendre les rapports qui existaient entre Wells, Morton et Jackson, il faut savoir que Morton était l'associé de Wells et que Morton était en pensions, comme cela se passe souvent en Amérique, chez Jackson. Quand Wells arriva à Boston, il visita le laboratoire de Jackson qui admit être au courant des expériences de Wells.

(1) The discovery of anesthesia (Virginia medical Monthly. May 1877).

Jefferson, dans la Géorgie, et rien ne lui était plus facile que de faire connaître au monde la belle découverte qu'il venait de faire. Pourquoi n'a-t-il rien dit? Pourquoi n'a-t-il pas parlé à ses confrères de sa découverte? Pourquoi n'a-t-il pas cherché à étendre et à développer sa méthode? Tout cela est vraiment inexplicable; d'autant plus qu'à partir de 1846 la question des anesthésiques fit le plus grand bruit en Amérique. Ce n'est qu'à la fin de 1849 que le docteur Long se décida à publier ses observations dans le *Southern medical and surgical journal*, alors que l'immortelle découverte de Wells était déjà connue et appréciée dans le monde entier.

D'autres chirurgiens ont pu, avec nom moins de raison, revendiquer la priorité de l'emploi de l'éther comme anesthésique pendant des opérations chirurgicales. Parmi ceux-ci nous citerons le docteur Parmly, père du docteur Georges Parmly qui exerce aujourd'hui avec distinction la chirurgie dentaire à Paris, qui a employé l'éther sur des malades trop nerveux avant 1840. On le voit, la réclamation de ce praticien serait tout aussi fondée que celle de M. Long si la priorité de l'invention n'était pas uniquement constituée par ce fait de la publicité (*Publicity is a touch-stone of invention*).

Les prétentions du docteur Long ne datent du reste que de 1853. Wells était mort depuis quelques années, et Morton intriguait auprès du Congrès américain pour obtenir une récompense nationale pour la découverte qu'il n'avait pas faite. C'est alors que la réclamation de Long fut présentée au Congrès par M. Dawson, sénateur pour la Géorgie. Il va sans dire que le Congrès n'en tint aucun compte, et que ni les prétentions de Morton, ni celles de Long ne furent admises. La commission nommée à cet effet déclara que les prétentions de Long étaient inadmissibles, parce que ce chirurgien n'avait fait connaître sa découverte que lorsque l'anesthésie était déjà connue. Cette décision nous paraît fort juste, car la publicité d'une découverte peut seule en assurer la priorité à son auteur.

M. Marion Sims nous paraît donc avoir cédé trop facilement aux entraînements de son cœur généreux en acceptant les réclamations du docteur Long qui, s'il a réellement découvert l'anesthésie, a eu le tort immense de ne pas faire connaître une découverte qui aurait pu l'immortaliser et rendre en même temps de si grands services à l'humanité.

"Quand deux larrons se querellent, dit un vieux proverbe russe, l'honnête homme retrouve son bien."

Ce proverbe n'a jamais reçu d'application plus vraie que dans l'histoire de la découverte de l'anesthésie. Rien, n'a mieux servi à réhabiliter Wells que la querelle qui éclata entre Morton et Jackson.

Le docteur Ch. Jackson qui a revendiqué l'honneur de la découverte de l'anesthésie est le même qui disputa à M. Morse l'honneur de l'invention du télégraphe auquel ce dernier a donné son nom.

Il paraît que c'était chez lui une passion que de s'approprier les découvertes des autres. On pourrait peut-être attribuer cet amour du bien d'autrui à une manie, et cette supposition est d'autant plus fondée que Jackson est maintenant atteint d'une forme incurable d'aliénation mentale. Habitant de Boston, il avait, disait-il, dans l'hiver de 1842, préparé du chlore. En ayant, par hasard, respiré la vapeur, il ressentit une forte irritation; pour y remédier, il eut l'idée de respirer de la vapeur d'éther, ce qui le soulagea et le jeta dans une sorte de stupeur. Cette propriété de la vapeur d'éther était déjà connue depuis bien longtemps aux Etats-Unis. Dans les écoles de médecine et dans les laboratoires de pharmacie les élèves avaient l'habitude de respirer de l'éther à cause des effets stupéfiants qu'il produisait. Cette circonstance est affirmée par un grand nombre de médecins américains, et entre autres par le docteur Brewster, le premier dentiste américain qui ait exercé à Paris. Il n'est donc pas probable que ce fait ait donné à Jackson l'idée de la théorie anesthésique qu'il n'aurait du reste fait connaître que quatre ans plus tard.

La suite de ce travail montrera si un homme aussi entreprenant que Jackson était

capable de ne pas publier immédiatement, à son de trompe, une découverte aussi importante pour lui.

H. Eddy, de Boston, auquel Morton s'adressa pour obtenir un brevet, trouva plus de droit à Jackson qu'à Morton. Mais Jackson, avec une apparence de générosité et de rare désintéressement, céda tous les droits d'inventeur d'une découverte faite en commun à son ami Morton, par sa déclaration du 27 octobre 1844. "Je veux lui faire du bien, dit-il, et n'avoir aucun intérêt dans le brevet." L'Office de Washington confirma ce brevet le 19 novembre. Mais des lettres de Jackson à un ami de Paris auquel il parle de l'éthérisation ne font pas mention de Morton. D'ailleurs, tout en affichant un si rare désintéressement, il se faisait d'abord donner par Morton 10 pour cent de bénéfice, et sur le refus de Morton de lui accorder 35 pour cent la rupture éclata.

Dans les *spécifications* ajoutées au brevet commun, les deux inventeurs, après avoir affirmé par serment qu'ils avaient fait la découverte ensemble, déclaraient avoir trouvé une nouvelle manière de procéder aux opérations chirurgicales, en supprimant la douleur par l'inhalation de l'éther sulfurique. "On sait depuis longtemps, disaient-ils, qu'introduite dans les poumons la vapeur de l'éther sulfurique produit des effets semblables à ceux de l'intoxication alcoolique, mais jamais on ne s'est aperçu que l'inhalation produisait l'insensibilité et que la chirurgie trouvait dans ce moyen un auxiliaire puissant." Nous savons déjà quel cas il faut faire de cette réclame.

Aussi Morton ayant attaqué la *New-York Eye Infirmary*, qui avait osé se servir de l'éther sulfurique, le juge Shipman, après avoir examiné le brevet, le déclara nul comme non conforme aux lois du pays. L'affaire, jugée de nouveau par Shipman et Nelson, obtint le même résultat.

Le colonel Bissel, président d'un comité chargé par le congrès des Etats-Unis d'examiner cette affaire, accorda à Wells la priorité de la conception, de l'expérimentation et de la vérification: "Le docteur Wells, dit-il, a pratiqué sans douleurs des opérations dentaires par le moyen du protoxyde de nitrogène. Il avait la grande idée de l'insensibilité à produire, il avait eu le mérite de provoquer les recherches; mais il rejeta l'éther sulfurique et abandonna le protoxyde de nitrogène, ainsi que tout autre agent. En somme, ses expériences furent complètement infructueuses." Or, le colonel Bissel est en contradiction avec lui-même, car il dit d'un autre côté que "quelques opérations dentaires réussirent, que Wells travailla assidûment à élaborer cette idée, et que n'ayant eu que de bons résultats il n'abandonna jamais le protoxyde". Pour nous comme pour la plupart des auteurs américains, le colonel Bissel ne fera pas autorité dans cette question.

T. Smith a consacré la plus grande partie du chapitre III de son livre à réunir les témoignages les plus essentiels, plaidant tous la cause de notre inventeur. Le volume restreint de cette publication ne nous permet pas de les reproduire ici. Nous constatons seulement que tous les observateurs impartiaux considèrent l'expérience du 11 décembre 1844, non seulement comme une véritable application de l'idée anesthésique, mais encore comme une expérience couronnée de succès.

Pour eux tous, la substitution de Morton est dépourvue de valeur; pour tous Wells est l'homme qui a eu la première idée de l'anesthésie, qui a fait les premières expériences, et qui a été indignement dépouillé de l'honneur de sa découverte.

Nous avons examiné dans les précédents paragraphes les divers jugements portés sur les inventeurs de l'anesthésie. Nous allons maintenant compléter l'histoire de Jackson et de Morton et réfuter une dernière fois les nombreuses erreurs commises par les écrivains qui ont fait l'histoire de l'anesthésie.

Après l'opération pratiquée sur Eben Frost, Jackson conseilla à Morton d'ajouter de l'huile de néroli à l'éther sulfurique pour en déguiser l'odeur et s'assurer la propriété unique de cet agent. Il l'engagea également à s'adresser au chirurgien Warren pour continuer les expériences.

Mais Morton, qui n'était pas bien sûr de lui-même, s'était déjà ouvert au docteur B. Roberts et lui avait dit que sa méthode n'était qu'un perfectionnement du procédé

de Wells. Au docteur Hayden qui lui demandait s'ils n'avait pas emprunté le procédé de Wells, il avait répondu par la négative et affirmé que le procédé qu'il préconisait ne ressemblait en rien à celui de ses prédécesseurs. Craignant de se compromettre encore davantage par d'autres contradictions, il refusa d'abord d'aller voir le docteur Warren et ne se décida à faire cette démarche que sur les instances réitérées de Jackson.

Les 17 et 18 octobre 1846, il fit devant les docteurs Heywood et Warren deux expériences qui réussirent, mais à la suite desquelles ces deux médecins lui déclarèrent qu'ils n'entendaient pas se servir plus longtemps d'un agent qui leur était inconnu.

Ce ne fut qu'à grand'peine que Morton leur révéla son secret; mais dès lors il put expérimenter librement et faire avec le *léthéon* (c'était le nom qu'il avait donné à sa composition) tous les essais qu'il voulut. La crainte de voir tout le monde se servir de son procédé à son propre détriment lui inspira le désir de se faire breveter. Le juge Eddy, auquel il avait demandé de lui procurer un brevet, lui conseilla de faire figurer à côté de son nom le nom plus connu de Jackson, et leur délivra, le 27 octobre, le brevet collectif dont nous avons déjà parlé. Nous savons déjà ce qu'il faut penser du prétendu désintéressement de Jackson dans ce brevet.

C'est quelque temps après que ce dernier voulut se faire donner 35 pour cent au lieu de 10 pour cent qu'il recevait sur les bénéfices. C'est à la date du 13 novembre qu'il se posait, dans une lettre à un ami de Paris, comme le seul inventeur, et disait avoir généreusement communiqué sa découverte à l'ignorant Morton. C'est vers la même époque que celui-ci, de son côté, faisait absolument le même manège. Enfin c'est au mois de février 1847 que Morton attaqua son associé Jackson et chercha à prouver qu'il était l'unique auteur de la découverte par des témoignages aussi dignes de foi que ceux de son confrère.

Nous croyons nos lecteurs suffisamment édifiés maintenant sur le caractère de ces deux inventeurs et sur la valeur de leurs prétentions. N'y eût-il d'ailleurs d'autre preuve constatant la priorité de Wells que sa persévérance énergique jusqu'au dernier moment, il suffirait de comparer son caractère à celui de ses deux détracteurs pour savoir de quel côté était la vérité. D'une part, on verrait un homme simple, enthousiaste, livrant généreusement à tout le monde sa grande découverte. De l'autre, on verrait deux hommes intéressés cherchant à exploiter au détriment de tous, puis au détriment de l'un et de l'autre, une invention qui ne leur appartient pas, deux parjures déclarant d'abord par serment que la découverte de l'anesthésie a été faite par eux deux en commun, puis s'attaquant en justice, chacun d'eux accusant l'autre d'imposture.

Et voici pourtant comment l'ouvrage le plus considérable publié en français sur l'anesthésie, le *Traité de l'anesthésie chirurgicale*, de MM. Perrin et Lallemand, conclut sur une question d'une si grande importance.

Nous citons ces auteurs:

"Jackson, le premier, mit hors de doute ce fait capital qu'une insensibilité générale est un des effets habituels de l'éther sur l'organisme; il reconnut en outre que cette insensibilité était obtenue dans un temps très-court, qu'elle disparaissait rapidement, que cet état ne faisait courir aucun des dangers qui lui étaient attribués avant lui. Mais ces révélations fondamentales, plutôt entrevues que démontrées par l'expérience, avaient besoin d'être fructifiées par un agent d'exécution docile, entreprenant, d'autant plus hardi qu'il connaissait moins la question.

"A Jackson, l'idée, à Morton, la réalisation de l'idée; sans celui-là, l'éthérisation n'avait aucune raison d'être; sans celui-ci, son avènement eût pu être retardé de plusieurs années. Tous les deux, à des titres divers, en dotant la chirurgie d'un moyen héroïque d'abolir la douleur physique, ont bien mérité de l'humanité. Mais si la postérité élève des statues à Jackson, elle hésitera peut-être à reconnaître pour un de ses bienfaiteurs un vulgaire marchand de léthéon."

Malgré l'autorité de MM. Lallemand et Perrin, nous nous permettrons d'émettre

la conclusion suivante, moins éloquente peut-être, mais plus vraie: à Horace Wells l'idée, la réalisation de l'idée et l'infortune; à Jackson et Morton l'exploitation parasite d'une découverte qui ne leur appartenait pas; à eux l'imposture, à eux l'honneur; mais si la postérité élève des statues à Wells, elle n'hésitera pas à regarder comme des plagiaires le marchand de *léthéon* et son digne complice.

Ce serait porter un grave préjudice à la mémoire de Horace Wells que de supposer qu'une fois sa découverte faite il s'en tint là et borna ses études sur l'anesthésie au protoxyde d'azote et à son application aux opérations dentaires. Truman Smith (p. 51 et 54) reproduit une série de témoignages d'hommes d'une honorabilité incontestable qui attestent que Wells, dès l'année 1845; c'est à-dire bien avant l'opération d'Eben Frost, étudia longtemps les propriétés de l'éther sulfurique; s'il n'en adopta pas l'usage, c'est qu'il le trouva inférieur au protoxyde de nitrogène, infériorité qui est à notre avis parfaitement démontrée aujourd'hui. Un peu plus tard, bien que le mauvais état de sa santé l'eût forcé d'abandonner sa profession de dentiste, bien que le cours d'ornithologie dont il s'était chargé lui prit beaucoup de temps, il n'en consacra pas moins tous ses loisirs et les dernières années de sa vie à l'élaboration, au perfectionnement de son procédé. On a quelque peine, en effet, à concevoir que M. Perrin, dans son *Traité d'anesthésie* et dans son article du *Dictionnaire encyclopédique*, fasse si bon marché de tous les documents que nous venons de rapporter et traite le véritable inventeur de l'anesthésie avec autant de sans-façon. "Découragé, dit cet auteur, par cet échec [l'expérience de Boston (1844)], Wells ne voulut même plus exercer la profession de dentiste et se mit à la tête d'une exposition d'oiseaux."

L'erreur de M. Perrin s'explique du reste par ce fait qu'il a puisé tous ces documents dans une brochure publiée en français et consacrée à la défense de Jackson. Cette brochure, écrite en vue d'obtenir une récompense de l'Académie des sciences, contient des insinuations mensongères contre Wells et Morton, et nous nous étonnons que l'éminent professeur du Val-de-Grâce soit allé puiser à une source aussi impure.

Wells ne se contenta pas de pratiquer des opérations dentaires, il introduisit l'anesthésie dans la chirurgie générale. La première grande opération dans laquelle il administra lui-même l'anesthésique est relatée dans le *Boston medical and surgical journal* de septembre 1847, et elle eut lieu le 17 août de la même année. Le docteur May, établi alors à Westford, aujourd'hui à New-York, opéra une tumeur du testicule, pendant que Wells administrait le gaz. L'opération dura quinze minutes. Le 1^{er} janvier 1848, Wells administra le protoxyde d'azote dans une autre opération. Le docteur V. W. Ellsworth, assisté par le docteur Hole, pratiqua une amputation de cuisse. Cette opération, qui fut couronnée de succès, fut publiée dans le *Boston medical and surgical journal* (t. XXVII, p. 409). Enfin, le dernier cas que nous citons se rapporte à l'ablation d'une tumeur pratiquée sur Mme. Mary Gabrielle, de Bristol (Connecticut), et eut lieu le janvier 1848, vingt jours avant la mort de Horace Wells, qui y administrait le gaz. L'opération fut faite par le docteur Beresford, qui rend le plus éclatant témoignage à Wells et ne peut assez élever le protoxyde d'azote au-dessus de l'éther sulfurique. Horace Wells avait donc découvert l'anesthésie. Il avait élaboré l'idée anesthésique et fait des expériences qui confirment sa théorie; il ne cessa de travailler à perfectionner son procédé, il l'introduisit dans la chirurgie générale et l'appliqua à de grandes opérations. Toute sa persévérance, tous ses efforts, ses luttes, ses travaux continus, ses malheurs, sa maladie, sa mort, tout disparaît devant les auteurs qui ont écrit l'histoire de l'anesthésie. D'après eux, il ne reste qu'un homme sans force de caractère qui a eu, il est vrai, une idée ingénieuse, mais qui, découragé par un échec, ne s'en est pas occupé davantage.

Nous ne saurions mieux répondre à ces allégations qu'en rapportant textuellement une citation du docteur W. Ellsworth:

"Je sais que le docteur Wells, depuis le jour de sa découverte jusqu'au jour de sa mort, faisait des essais sur la préparation et le mode d'administration du gaz, qui

devint entre ses mains beaucoup plus efficace qu'il n'était en premier lieu, le gaz étant plus pur et les instruments plus perfectionnés."

Nous citerons encore le témoignage de M. John Ferry, qui exerça la profession dentaire avec distinction :

"Pendant tout le temps que Wells exerça sa profession, il continua de faire des essais sur la construction d'appareils à inhalation, sur le nitrate d'ammoniaque avec lequel il préparait le gaz, sur le gaz lui-même et sur la manière de le préparer. En un mot, il s'occupa de l'anesthésie depuis le jour de sa découverte jusqu'à sa mort."

Jusqu'à sa mort ! C'est un mot qu'ici il faut bien prendre à la lettre. C'est bien vingt jours avant sa mort que Wells administrait le protoxyde d'azote dans une grande opération qui eut tout le succès possible ; et lorsque, enfin, se voyant enlever tout l'honneur de sa découverte par Morton et Jackson, qui n'étaient que ses plagiaires, Wells fut réduit au désespoir, il chercha la mort, et c'est encore à l'anesthésie qu'il s'adressa pour mettre fin à une carrière si malheureuse.

Rendu fou par l'échec de son mémoire et l'insuccès de toutes ses protestations, il donna des signes manifestes d'aliénation mentale. Il fut arrêté et emprisonné ; puis, ne pouvant supporter plus longtemps la vie, il s'ouvrit les veines aux quatre membres et respira de l'éther sulfurique jusqu'à ce qu'il tombât privé de connaissance.

Ainsi mourut, le 14 janvier 1848, l'homme auquel nous devons la plus grande découverte médicale de notre siècle, le plus grand bienfaiteur de l'humanité.

Wells mort, il fut facile de déprécier son œuvre ; Jackson et Morton eurent alors beau jeu. Ils se sont partagés tous les honneurs : reçus membres d'un grand nombre de sociétés savantes, nommés chevaliers de la Légion d'honneur, aucune distinction ne leur a manqué ; mais l'histoire a relevé aujourd'hui la mémoire d'un homme injustement tombé dans l'oubli. Ses contemporains ont pu le méconnaître, la postérité ne le méconnaîtra pas, et, parmi ceux qui ont le mieux mérité d'elle, elle placera au premier rang le nom de Horace Wells.

Comme on le voit, ces notes historiques se rattachent seulement à la découverte de l'anesthésie chirurgicale. Il nous reste maintenant à étudier les progrès de la science des anesthésiques depuis Wells jusqu'à ce jour. Après avoir justement flétri la mémoire des deux hommes qui ont par des intrigues déloyales cherché à dépouiller l'inventeur et à revendiquer pour eux l'honneur et le profit de la grande découverte, nous essayerons de voir la part qui revient à chacun d'eux, non pas dans la découverte (nous savons que Wells est le seul inventeur), mais à la propagation de l'idée des anesthésiques. Nous serons justes, et nous dirons que, si l'histoire doit être implacable envers Jackson qui n'était qu'un vil plagiaire, elle doit se montrer un peu plus indulgente pour Morton, qui, tout en cherchant à dépouiller Wells a cependant beaucoup contribué à répandre l'anesthésie par l'éther.

Nouvelles

L'Association Dentaire Canadienne nous envoie périodiquement sous forme d'une lettre, quelques nouvelles pouvant intéresser le lecteur.

Assurance santé.

A une récente assemblée de l'exécutif de l'A.D.C., à Ottawa, l'Honorable Brooke Claxton, Ministre de la Santé Nationale et du Bien Etre Social, a fait au sujet de l'Assurance Santé, un rapport assez précis.

1 — Aucune forme de médecine d'état ne sera présentée par le présent gouvernement.

2 — Les rapports actuels entre dentistes et patients devraient être maintenus.

3 — Le but du gouvernement était seulement de mettre plus d'argent à la disposition du peuple afin qu'il se procure plus de services de santé.

4 — Que la prochaine session du parlement sera probablement interrompue par une conférence fédérale-provinciale au sujet de l'Assurance Santé. On y règlera certaines difficultés surtout d'ordre financier.

5 — Que la législation ne devrait opérer pas plus tôt que le 1er juillet 1946 et probablement au plus tard au 1er juillet 1947.

6 — Que le gouvernement n'a envisagé aucun changement dans la section du projet de loi tel que rédigé.

En parlant du projet l'Allocations familiales M. Claxton déclara que la distribution d'une moyenne de \$15.00 par mois à chaque famille du Canada commencera le 1er juillet prochain. L'intention du gouvernement est de voir à ce que cet argent soit dépensé pour la fin prévue et de cette façon une partie échoirait aux dentistes de pratique privée.

Dentistes—Attention

Du Saturday Night—Fev. 3, 1945

Les dentistes de la Colombie Canadienne vont être sur leurs gardes à l'avenir avant d'exécuter leur propre jugement en extrayant des dents. Madame Amanda Pearl Yule, de Penticton, a gagné une action en dommage de \$5200.00 contre les Docteurs J. R. et T. F. Parmlee parce sans son consentement on lui a enlevé toutes ses dents du haut à l'occasion d'une anesthésie générale pour ablation d'amygdales.

Le Dr. J. R. Parmlee, chirurgien qui a ordonné les avulsions doit payer \$5000.00 des dommages accordés. Les docteurs en ont appelé et ont perdu!

In Memoriam

Nous venons d'apprendre avec tristesse la mort du Docteur Alexandre St Pierre. Ceux qui ont eu l'avantage de l'avoir comme professeur, n'ont pas oublié sa belle tenue à la tribune, sa grande distinction, la sagesse de ses conseils et la clarté de ses leçons.

La rédaction au nom de tous nos confrères prie la famille d'accepter nos plus sincères condoléances.



Halftone by Courtesy of Pap

WINTER SCENE IN MANITOBA

"Knowledge, valuable as it is, is not the most important qualification for the practice of dentistry. Character, aptitude and attitudes are more important. Should they not be rated so in the college educational program? Aptitude, though it can not be trained, can and should be screened by the college to avoid the life-long disappointments of misplacement. Character and attitudes actually are moulded by college influences, for better or worse, and therefore are products of college life and are the responsibilities of the college, just as much as scholarship. The fact that the moulding influence is the student body, more than the faculty, makes the problem different from that of scholarship, and a different method must be found for dealing with it."— (Adapted to Dentistry from article in "Science" by Dr. Albert W. Hull of the Research Laboratory of General Electric Co.)



FENWICK C. BONNELL, D.M.D., Saint John, N.B.

Chairman of the Board of Examiners of the New Brunswick
Dental Council.

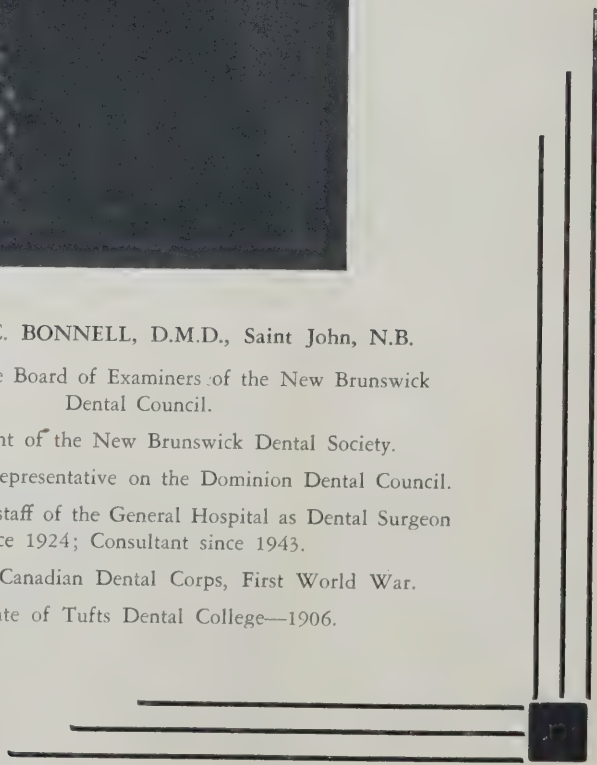
Past President of the New Brunswick Dental Society.

New Brunswick Representative on the Dominion Dental Council.

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Graduate of Tufts Dental College—1906.



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Diet and Dental Caries^{*}

by DR. L. B. PETT

Director of Nutrition, Department of Pensions and National Health, Ottawa, Ontario

THERE is always someone ready to proclaim loudly that dental caries can be prevented, yes, and even cured, by eating properly. In the past, nutritionists have supported this idea, with specific advice to eat this way or eat that way. Then there have been obscure arguments about the virtues of natural foods and there have been wild shouts about this or that nutrient. You have all heard about calcium, and of the calcium-phosphorus ratio, and of vitamin D, and of vitamin C, and of bone meal and of fluorides.

If any of you expect me to tell you some way whereby food can with certainty prevent or cure tooth decay, you will be disappointed. The subject is not yet settled enough to give a full and clear explanation. So far as I know it is not possible by dietetic means to control the spread of caries in a tooth, under all circumstances, although it seems to have been done at times.

But I do wish to affirm very emphatically that food has a lot to do with dental caries, and that we are not doing as much about it as we should.

Let me briefly review some of the things about diet and decay that we know, or think we know.

1. The chemical analysis of a tooth shows that it consists largely of calcium and phosphorus. It is a fact that diets low in calcium and phosphorus are often associated with extensive tooth decay. But we also know that all the calcium pills in the world do not always keep teeth from decaying.

2. We know that calcium and phosphorus are more readily utilized by the body to form good bones and teeth in the presence of adequate amounts of vitamin D. But we also know that regular attention to vitamin D in children has not wiped out tooth decay, even though it has been of great benefit against rickets in general.

3. We know that vitamin C is necessary not only for healthy gums, but, possibly more important, for strong dentine. Lack of vitamin C during formation seems to make a porous, softer dentine—the kind that gives way suddenly under the drill.

4. We know from recent work (1938) that the average fluorine content of sound teeth is higher—in fact, nearly twice as much—as the average content of carious teeth. This observation has led to the present wide interest in fluorides.

5. We know that carious teeth are more commonly found in mouths of

^{*}Presented before the Eastern Ontario Dental Association, Ottawa, Sept. 18, 1944.

people who eat a lot of carbohydrate, and that this seems to be associated with the numbers of acidophilus bacteria. We know, too, that the composition of the saliva seems to influence this condition, as well as the formation of plaques.

6. We know that, although drinking milk is a very healthful practice, it does not give complete protection from tooth decay.

7. We know that many surveys in many countries show that people who have very little dental caries follow a different dietary pattern than people who have much caries. Yet we also know that eating according to the best rules does not always seem to work, at least in adults.

What, then, does this all add up to? What general conclusions can be drawn?

We must distinguish to some extent between the way a tooth has developed in the past, and the conditions it meets now. The whole environment of that tooth since it started in the embryo has an influence on the development of caries, now or next year.

For convenience I shall divide these influencing factors into three sections. One-third of the conditions governing tooth decay were settled before birth and were chiefly dietary; one-third of the conditions are dependent on current dietary habits; and the remaining third we don't know much about, but we must allow for them.

Incidentally, I want to deny an old idea about diet in pregnancy. It used to be said that the developing fetus took whatever it needed from the mother, and would likely be satisfactorily nourished even if the mother suffered. To some extent this is true, as witness the old statement about "a tooth for every child". But actually it is quite false. We now know that if the mother's diet is not nutritionally adequate then the baby's health and tissues will suffer, as well as the mother's. Of course this does not mean that a mother should grossly

over-eat as used to be done, but careful selection of food is required.

Furthermore, I must remind you of a fact about the development of teeth. As you know the first teeth begin to be laid down about the third month of pregnancy and continue till birth. Some of the second teeth start during pregnancy too. Now, many pregnancies are not diagnosed until the third or a later month, and dietary inadequacies may already mean that the child will have inferior teeth. A good diet is essential throughout all the pregnancy. Then from birth until the age of about 9 years the second teeth are laid down. Dietary inadequacies at any time in this long period of time, especially if they continue for quite a while, influence the decay to be experienced later on. Here is an excellent reason, if one is required, for dental work plus dietary advice, plus dietary help in the way of school lunches etc. during these years. Especially important are the pre-school years.

Then we have the environmental factors of child and adult. They certainly have an influence on decay, but always remember that at least 1/3 of the battle has been already won or lost when the child is born. That is why nothing you do after birth, especially in the adult years is completely effective. There is some evidence, however, that partial success can be achieved.

I have referred to surveys of what people eat in relation to their teeth. One of the best of these was done in Norway, and comprised over 25,000 children. A more recent one in Philadelphia also extended over three years. One result is clear, namely, that a certain dietary pattern before birth, and during life especially the first 9 years of life is usually associated with sound teeth. Deviations from this dietary pattern were associated with caries. In Norway they considered this more important than cleaning or not cleaning the teeth, or

than eating candy, or many other factors.

Now, what is this magical Dietary Pattern? Strangely enough it is really quite a familiar one, but here and there are little changes which seem to turn the balance in favour of better teeth. Remember again that it is not just what you eat, but when you eat it. In the nine months of pregnancy the mother's diet will influence the baby's teeth throughout all its life to the extent at least of the arbitrary one-third I have mentioned. During all the first nine years of life, a child must be adequately nourished if food is to exert its maximum influence for sound teeth. Furthermore, it is not a matter just of milk, or just of calcium, or just of cod liver oil, or just of vitamin C, or just of protein, but rather a matter of regularly using certain foods.

What foods?

1. Milk, of course, but not so as to reduce consumption of other foods. Suitable amounts will assure all the calcium needed.

2. Cod liver oil, or some form of vitamin D.

3. Whole grain cereals more as sources of B vitamins than in their usual role as energy foods. Oatmeal instead of refined farina. Wheat flakes instead of corn flakes. Whole wheat cereals instead of puffed cereals. Maybe not all the time, but frequently. And eat brown breads often. You can also use wheat germ or yeast to build up these B factors that seem to be needed.

4. Citrus fruit, tomatoes, and other sources of vitamin C such as broccoli, kale, cabbage, baked potato, turnip, etc. These do not get enough emphasis in relation to teeth. Not every family can give each member an orange a day. It is not enough to say—"vegetables and fruits", we must stress the ones with high vitamin C values, and we must work to retain those values during cooking. Losses

in cooking tend to rob us of the benefits of a well-selected menu.

That is the whole list: Milk, cod liver oil (for vitamin D), whole grain cereals (for B vitamins) and good sources of vitamin C. Of course we also need meat and fats, and sugar and many other things to round out our diet. But every day we should try to get milk, citrus fruit, whole grain cereals, and for children cod liver oil. These were the foods that surveys found to be used throughout all the groups having sound teeth. These are the foods which make a great difference to the health of the pregnant mother and of her baby. And these are the foods which many Canadians are not eating—not because they dislike them, not always because they cannot get them, but just because they get careless and do not buy them regularly. That may not be the whole story of dental caries but that will take care of two out of the three-thirds I have postulated.

In the remaining one-third of the factors influencing dental caries, we may briefly consider the recent studies on fluorides. The chain of evidence is made up as follows:

1. Armstrong & Brekus showed that the intact enamel of carious teeth contains less fluorine than the enamel of noncarious teeth. (*J. Dental Res.* 17: 393, 1938).

2. Dean & co-workers of USPHS showed that where 1 part per million of fluoride is present in domestic water supplies there is much less dental caries (but still some). (*Pub. Health Rep.* 57:1155, 1942.)

3. Animal experimentation (rats) showed less caries if fluorides were added to the diet.

4. Volken Hodge, etc. showed that fluoride is absorbed from solution by powdered enamel. (*J. Biol. Chem.* V. 135 p. 543, 1940.)

5. Mature erupted rat molars increase their fluorine content when given drinking water containing 20

ppm of fluoride. This increase seems to have been caused by adsorption, i.e., the fluoride sticks to the enamel, rather than by any internal route. It was not shown whether these rats ultimately had less caries, however. (Perry and Armstrong. *J. Nutr.* 21 p. 35, 1941.)

6. Knutson & Armstrong (*Publ Health Reports*, Nov./43) applied sodium fluoride topically to the teeth of 337 children aged 7 to 15 years. Re-examination was carried out one year later. There was less new caries among the treated teeth, but no appreciable effect on new carious areas

in teeth previously attacked by caries.

In passing it may be noted that the toxicity of sodium fluoride demands that it be carefully handled. This toxicity also suggests that fluorides adsorbed on enamel surfaces may reduce the bacterial flora on those surfaces, and thus reduce caries.

In conclusion, as a practical suggestion, I wish to show you copies of our Score Sheet for Each Day's Meals, and to say that my office, or your Provincial Department of Health, keeps a supply of these to give you free, for distribution to your patients. It is available either in French or English.

THE STATUS OF HEALTH INSURANCE IN SASKATCHEWAN

by DR. LORNE CONNELL, Prince Albert, Saskatchewan

THE plans and principles for National Health Insurance, as applied to Dentistry, which have been submitted to the Dominion Government by the Canadian Dental Association, have necessarily been quite broad and sufficiently flexible to be adaptable to conditions in all the provinces. As under our present system of government, administration will be in the hands of the provincial Departments of Public Health, it would seem desirable, that an intimate study of local conditions be undertaken by the governing bodies of the profession, as well as individual societies, with a view to formulating detailed plans for providing the required services in their respective jurisdictions.

The writer does not pretend to be an authority on these matters, but will endeavour to outline, briefly, conditions in the province with which he is most familiar, some of the difficulties which will have to be met, and some suggestions which have been put forward for providing dental services in areas which have been sadly neglected,

with the hope that it will help to stimulate interest on the part of the individual dentist and an exchange of ideas between the provinces.

The Province of Saskatchewan has a splendid record of enlistment in the C. D. C., which naturally reduces the services available to the civilian population. The ratio in 1939 was about one dentist to 4,200 population, while at the present time it is one to 7,000, and of those remaining the greater percentage are concentrated in larger centres. Heavy enlistments from the smaller towns, have left larger areas which must be served from the cities. The report of the Advisory Committee on Procurement and Assignment in 1943, divided the Province into twelve districts for statistical purposes and showed that in some of the districts the ratio was as high as one to 12,000, which means that a great many people are only receiving palliative treatment. The response of the profession to the need has been magnificent, but such a sustained effort cannot be maintained indefinitely.

The demand for more adequate health services by the public has received considerable attention from the provincial governments. In 1943 a Special Select Committee of the Legislature was set up to report on Social Security and Health Services. The report adopted on March 31, 1944, endorsed the principle of Health Insurance, but intimated that with the available sources of revenue, implementation of the proposed program would not be possible, without Federal aid. However, in the closing hours of the session the Saskatchewan Health Insurance Act was past, which provided for the setting up of administrative machinery in anticipation of Federal legislation.

The present Government, on assuming office in the summer of 1944, appointed Dr. H. E. Sigerist, of Johns Hopkins University, to conduct a health Services survey, with representatives of the interested professions to act in an advisory capacity. Dr. Sigerist's report was presented to the Minister of Public Health in October, 1944. While the ultimate objectives are almost identical with those approved by the previous administration, the proposed methods of attainment are somewhat different.

The report which was quoted in part in a recent issue of this Journal recommended the provision of dental care for children up to the age of 16. In the urban centres the work is to be done by full time salaried dentists and in rural areas, by travelling clinics sent out from District Health centres, rather than by private practitioners, on a "fee for services" basis, which was the expressed preference of the profession.

At the present time, school dental services have been greatly curtailed. Only one city employs a full time dentist and two others are carrying on a somewhat restricted program. Clinics which were organized by the Dept. of Public Health for outlying districts have practically discontinued owing to lack of personnel.

On January 19, the Minister of Public Health, on a radio address, announced that effective January 31, free medical and hospital services would be provided for all recipients of Old Age and Blind pensions, and their dependents, as well as the dependents of those receiving Mothers' Allowances and all children who are wards of the Government or Municipalities. He also stated that for the present dental services could not be supplied as it would not be possible for the dentists to assume any greater burden than they were carrying. However, a press despatch of the same date announced that as soon as possible dental clinics would be set up in three centres, to give services to the above mentioned groups—the work to be done by salaried dentists. Priority was to be given to the elimination of pain and infection, with the filling of children's teeth, termed as preventive dentistry, placed in a secondary position.

In summary it appears, that due to lack of trained personnel and the necessary financial resources, it is unlikely that there will be any great expansion of dental services in the near future. It was announced recently by the Minister of Social Services that the Government could not hope to have its program in operation in less than five years.

The present tendency seems to be towards having all dental services provided by salaried officials, where the establishment of clinics is possible. Undoubtedly certain phases of the work can best be carried on in this way and the question of how far we are prepared to accept it as a general policy should receive our earnest consideration. Even the provision of services to children of a limited age group must be a gradual development and we can be assured of a certain amount of private practice for many years to come, so the individual dentist will have a choice of systems under which he will operate. This point was very ably discussed by the editor of our Journal, in an address to the Minnesota

State Dental Association in March, 1944. I shall quote in part: "I am personally in favour of all state medical and dental service being carried out in health centres, with personnel paid on an adequate salary basis and with adequate pension provision" and further on "If we can keep a reasonable amount of private practice still functioning, the competition between the two systems will help the salary situation because the government will have to give adequate remuneration or the dentist will choose to enter private practice." From the most conservative view point, Dr. Garvin's suggestions should be worthy of trial and the risk of dire results to either plan would be negligible.

Failing the establishment of any extensive provincial scheme, it will be necessary to take some steps to attract the dentists to outlying districts, where suitable accommodation is difficult to obtain. In a brief presented to Saskatchewan Reconstruction Council in 1944, by a committee of the profession, it was recommended that all district hospitals and health centres should include a dental suite which could be used by officials of the Department or made available for private practice. It was also suggested that if two or three small towns, in a convenient group would provide adequate office accommodation, it might be attractive to the young dentist who might wish to serve each on a part time basis. Mobile units on wheels could be used only on a limited scale in this province, owing to weather conditions at certain seasons, but isolated districts could be

served reasonably well throughout the year with portable equipment, such as used by the C. D. C.

The demand for dental services will, as in the past, depend greatly on the individual's ability to pay, either directly or through taxation. It is regrettable that this point has been somewhat obscured by the constant reference to "free" services by governments, political parties, and other organizations all across the country. The maintenance of an adequate income level for all people is of vital importance, for the provision of essential health services. If this can be accomplished there is little doubt that all C. D. C. personnel can be absorbed as they are released from the service, as well as the output of our colleges, for some years to come, even with the increased registration which can be expected after the war is over. Development, in order to be sound, must be gradual and while professional inertia is to be deplored, we must not allow ourselves to be stampeded by outbursts of political enthusiasm on the part of ill-informed persons. On the other hand if we are not prepared to take the lead, we may have to submit to being lead. If we are to preserve autonomy in the administration of our own affairs, we must prove that we are capable.

Undoubtedly we can expect changes in the system under which we operate and some of these changes we may not like, but our objective should be the provision of the best quality of dental service, to the greatest number of people.

A specialist, it has been said, is a man who knows more and more about less and less, or who wants all your teeth out before he can make another guess at what is the matter with you.—Sir James Crichton-Browne in "From a Doctor's Notebook".

"When a man has ceased to grow, he's waiting for his undertaker, and the longer he has to wait, the more's the pity."

Schoolmaster Abroad

QUESTION:

WHAT IS THE ORIGIN OF MOUTH ODOURS?

ANSWER:

By Burrill B. Crohn, M.D., New York, N.Y., and Rudolph Drosd, M.D., New York, N.Y., as published in New York Journal of Dentistry.

Let us consider that *fetor ex ore* is a local phenomenon, originating from putrid processes somewhere in the oral cavities or in their periphery. This phenomenon explains a few of the cases of fetid mouth odours.

True halitosis, according to our hypothesis, is the emanation upon the breath of substances, produced somewhere in the alimentary tract, probably the intestines or the liver, substances of a volatile nature, possibly originating in faulty metabolism of fats or lipid material, passing through the liver, the circulatory medium to the lungs, and thence exhaled upon the breath.

The therapy of true halitosis lies in reducing in the diet the intake of fatty aromatic substances, particularly the milk or butter fats, or other yet to be determined substances, that in the breaking down process in the intestines may possibly give rise to the excretion upon the breath of noxious halitotic odours.

WHAT IS THE OPTIMUM TIME FOR ORTHODONTIC TREATMENT?

ANSWER:

By Milo Hellman, D.D.S., Sc.D., New York, N.Y., as published in the Journal of the American Dental Association.

1. Because of the general lack of reliable and specific knowledge regarding the effect of malocclusion on life and health, opinion about the most propitious time for orthodontic treatment is greatly divided.

2. The testimony based on actual practice fails to support the arguments in favour of early treatment.

3. Early treatment tends to prolong indefinitely the period of orthodontic care and offers no assurance of better results.

4. Unduly long periods of orthodontic treatment influence unfavourably the tissues composing the teeth and those surrounding them.

5. Economy in treatment is essential in the consideration of time and the expenditure of money because (a) the span of human life is too limited to allow a large portion of it to be spent in regulating teeth, and (b) too great a financial burden eliminates a large portion of the population from the benefits of orthodontic services.

6. Evidence from practical results gathered many years after proves that orthodontic treatment, to be of greatest benefit to the patient, must be completed in a short time.

7. The most favourable time to gain desirable orthodontic results is the period of maximum facial growth.

8. Active tissue growth during tooth movement facilitates bone transformation, hastens tissue recuperation from strain and promotes regeneration in injuries.

9. Since the period of maximum facial growth precedes eruption of the second molar teeth by at least a year, it may well be considered as the optimum time for successful and beneficial orthodontic treatment.

Learning maketh a man fit company for himself.—Roger Bacon.

The Forum

PENICILLIN PASTILLES IN THE TREATMENT OF ACUTE ULCERATIVE GINGIVO-STOMATITIS (VINCENT'S TYPE)

by ALEXANDER B. MacGREGOR, M.A., M.D., B.Ch.Cantab., L.D.S.Eng., Squadron Leader, R.A.F.V.R.,
and DAVID A. LONG, M.B., B.S.Lond., Demonstrator of Pathology, St. Bartholomew's Hospital,
Pathologist, E.M.S.

Condensed from Br D. Jour., Jan. 1945.

IN RECENT years vitamin deficiencies have been cited as the main predisposing cause of the disease. Vitamins A, B and C have all had their share of attention, and King has shown that although administration of vitamin C did not accelerate healing, nicotinic acid combined with local measures appeared more beneficial than local measures alone.

It will be seen that the two main factors in the causation of the disease are: (a) A predisposition to attack caused by a lack of resistance in the gingival tissues; this lack of resistance being brought about by many local or general conditions. (b) The invasion of the tissues either by some unidentified organism, or virus, which is causal, but provides conditions for the excessive growth of spirochetes and fusiform bacilli, or by the spirochetes and fusiform bacilli themselves.

Endeavours to increase the resistance of the tissues by vitamin therapy have not proved particularly encouraging, save possibly when used as an adjunct to local treatment, and local treatment, both mechanical and chemical, still remains the accepted practice. Previous experience had shown that penicillin in the form of a spray was unsatisfactory in the treatment of acute tonsillitis, presumably owing to the transient action so exerted, and it was felt in consequence that if any

success were to be obtained in this condition, or with acute ulcerative gingivo-stomatitis, a means of maintaining an adequate concentration of penicillin in the mouth would be required.

It was therefore decided to try the effect of penicillin contained in a pastille. The preparation of these pastilles and the experimental work to establish the dosage and effectiveness of penicillin applied in this form has been reported previously by MacGregor and Long. Suffice it to say here that it was shown experimentally that the penicillin remained active in the pastille; that an effective concentration could be maintained in the mouth; and that the pastilles would keep for at least three months without deterioration of efficiency. The standard dose adopted has been 500 units of penicillin in each pastille, though in many cases we have successfully used pastilles containing only 250 units.

On starting treatment each patient was instructed to place a pastille in the buccal sulcus, to leave it there until it had dissolved without chewing or sucking, and then to replace it with another. The time taken for the pastille to dissolve varied in different patients and, in general, tended to be shorter in the earlier and more acute stages of the infection owing to the greater degree of salivation. The average, however, was about three-quarters

of an hour. Particular instructions were given that a pastille should be inserted last thing at night and that it should be replaced should the patient wake. Great attention was paid to seeing that the patient fully understood the instructions given and the importance of regularity in the taking of the pastilles, since it was clear that much depended on intelligent cooperation.

Acute ulcerative gingivo-stomatitis of Vincent's type can be treated more simply and more quickly with the use of penicillin pastilles than by any other method. In addition, the damage to the tissues caused by the more usual treatments with caustics and escharotics can be avoided. It is not suggested that gingivectomy or other procedures to eliminate the gum pockets and stagnation areas will not be necessary at a later date, since, while these pockets and areas remain, the possibility of recurrent infection is always present.

The treatment described is advocated in the acute stages, and the fact that no recurrences have been seen over a period of five months suggests that immediate recurrence is unlikely.

The very rapid disappearance of spirochetes and fusiform bacilli, once treatment with the pastilles had been started, coincided with the dramatic overnight disappearance of the patients' symptoms. Viruses on the whole appear to be insensitive to penicillin, so that in acute ulcerative gingivo-stomatitis if the spirochete and fusiform bacillus are not causal, some other unknown organism must be held responsible. The coincidence of clinical improvement with early disappearance of the spirochetes and fusiform bacilli has appeared so constant and so striking that we consider that it is necessary to regard these organisms as playing at least a major part in the aetiology of the disease.

THE PROPER TIME TO BEGIN ORTHODONTIC TREATMENT

by L. B. HIGLEY, B.A., D.D.S., M.S., Iowa City, Iowa

(Conclusions of paper in *Jour., A.D.A. Sept., 1943*)

THE data supporting the contention that a single period of maximum facial growth occurs during the span of years, when most orthodontic treatment is feasible, are inadequate.

The results obtained in the treatment of dentofacial deformities at various ages indicate that no one dental formula or stage of dental development can be used to indicate the time to begin orthodontic treatment.

"The earlier orthodontic treatment is instituted the more influence such correction will have upon the growth and development of the face."

Although the ultimate goal is normal dentofacial relations in the adult, this can be achieved only by early elimination of aetiological factors and the establishment of normal function.

Guiding the dentofacial structures to adult efficiency by preventive methods is more logical than attempting to correct the deformity after the damage is done.

A thorough knowledge of growth changes is essential to differentiate between normal development and deformity, if unnecessary treatment is to be avoided.

"Teach me the art of forgetting; for I often remember what I would not, and cannot forget what I would." — *Saying of Themistocles as recorded by Cicero.*

ANNOUNCEMENTS

Dominion Dental Council Examination

There will be a Dominion Dental Council examination held in Halifax July 30 to August 4 inclusive. Class "D" fees should be in the Secretary's office not later than June 15, Class "A" not later than July 1.

A. J. BRETT, *Secretary*, Regina, Saskatchewan.

Ontario Dental Association

The 78th Annual Convention of the Ontario Dental Association will be held at the Royal York Hotel, Toronto, Ontario, May 28, 29, 30, 1945. Dentists from the United States and from all parts of Canada will be welcome.

EDMUND A. GRANT, *Secretary*.

Western Canada Dental Society

The Biennial Meeting and Refresher Course of the Western Canada Dental Society will be held in Winnipeg at the Fort Garry Hotel June 18 to 20. An excellent program is being arranged.

CHARLES H. M. MOORE, *Secretary*.

Canadian Dental Association

The Board of Delegates of the Canadian Dental Association will meet in Winnipeg at the Fort Garry Hotel, June 13 at one o'clock p.m. The General Meeting of the Association will be held on Monday, June 18 at 4.00 p.m. Hotel reservations should be made now.

R. A. ROONEY, *President*.

DON W. GULLETT, *Secretary*.

New Brunswick Dental Society

The Annual Convention of this Society will be held in the Admiral Beatty Hotel, Saint John, September 17 - 18.

Eastern Ontario Dental Association

The Annual Convention of this Association will be held in Ottawa September 23 - 25.

L. R. BRADEN, *Secretary*.

Montreal Dental Club

The 21st Annual Fall Clinic under the auspices of the Montreal Dental Club will be held on October 24, 25, and 26, at the Mount Royal Hotel, Montreal, Canada. For further information apply to

M. L. DONIGAN, D.D.S., *Director, Fall Clinic*,
Drummond Medical Bldg., Montreal, Quebec.

A METHOD FOR TREATING THE PARODONTAL ABSCESS*

by SIDNEY SORRIN, D.D.S., New York, N.Y.

Assistant Professor of Periodontia, New York University College of Dentistry, N.Y. Jour. of D. Dec., 1943.

WE HAVE recently employed a method which has proved most effective in the treatment of the parodontal abscess. A parodontal abscess is a localized accumulation of pus situated in the supporting structures of a vital or non-vital tooth, and usually associated with periodontoclasia. It usually does not arise from periapical pathosis. Sometimes it is improperly referred to as parietal, lateral and periodontal abscess.

Fig. A. Location of the parodontal abscess.

Fig. B. A semilunar incision is made between the marginal gingiva and the involved area.

Fig. C. The granulatous tissue is removed and the margins of the flap are sutured.

The procedure advocated is the semilunar incision which exposes the diseased tissues, and effects a most aesthetic result. Injections are made



FIG. A



FIG. B



FIG. C

Our method is used most often when the marginal gingiva is intact, and the cemental or alveolar gingiva or both are involved.

The usual means of securing drainage through the gingival sulcus results in much gum recession. There is also the possible difficulty in healing, particularly if the diseased process extends interdentally. The button-hole incision method as advised by Miller is adequate, but does not allow for clear vision.

both on labial and lingual surfaces, being careful to avoid the diseased area. (Fig. A.) Semilunar incision is made between the marginal gingiva and the involved area (Fig. B), leaving the gingival margin undisturbed. After the area is curetted and granulatous tissue removed, the margins of the incision are brought into place and sutured. (Fig. C.)

The results of this operation are most effective because all diseased tissue is easily removed and the minimum of recession occurs.

*The Committee on Nomenclature of the Academy of Periodontology recommended that the prefix "Para-" be used only when it is intended to indicate something specifically beside or nearby, and not surrounding the tooth. The so-called parietal abscess may properly be designated parodontal abscess if the lesion involves structures only on the side of or near the tooth but not involving the entire circumference of the tooth.

"If I have done anything worthy of remembrance, that will be my monument. If not, no monument can preserve my memory." — By King of Sparta.

ETHYL CHLORIDE AS A GENERAL ANAESTHETIC FOR CHILDREN

by R. M. ERWIN, Jr.

Instructor, Children's Dentistry, N.P.C., Portland, Oregon

The advantages of ethyl chloride over other general anaesthetic agents:

1. Rapid action; i.e. production of anaesthesia.
2. Rapid recovery; i.e. elimination of anaesthetic agencies.
3. No prolonged post-operative depression.
4. No stimulation to vomiting centres when proper depth of anaesthesia is obtained.
5. Simplicity of equipment. (Ease of administration and production of less mental unrest of child.)
6. Inexpensive to operator.

Disadvantages:

1. Does not produce a prolonged period of anaesthesia, and cannot be used for complicated operations.
2. Additional quantities cannot be administered if the patient shows signs of recovery before completion of operative procedure.
3. Readministration within the same period of 24 hours is not advisable.
4. Should not be given to children over the age of 12 years.

Indications:

1. May be used on any child whose physical condition permits the use of any general anaesthetic and whose age does not exceed 12 to 13 years.
2. Especially indicated for all cases below the age of 8 years due to psychology of the situation.
3. In the presence of inflamed and infected soft tissues.
4. For those cases beyond the age of 8 years up to 12-13 from whom cooperation cannot be expected or obtained.

Contra-indications:

1. There are no contra-indications peculiar to ethyl-chloride itself. Sensible observations of the rules controlling the use of any general

anaesthetic for an individual are our only limitations; i.e. physical maladies of serious nature.

2. The age limit beyond that of 12-13 years is the only exception in this respect. The older children, as the adults, would require such quantities that when sufficient amounts are given to accomplish the desired degree of anaesthesia it may become toxic in such amounts.

Cautions:

1. Observe factors of the disadvantages and contra-indications.
2. Never seek a depth of anaesthesia beyond that of second degree anaesthesia (depression, analgesia).

Classification of Stages of Anaesthesia According to Physiologic Response:

1. Stimulation excitement
2. Depression depression
3. Pre-paralysis ..surgical (old terminology)
4. Paralysis danger

Stage Sought with Ethyl-Chloride:

The stage sought is that of depression, analgesia, or the second stage and within the range of early onset to middle of and never deeper than the latter phase of that stage.

Signs of Desirable Depth of Ethyl-Chloride Anaesthesia:

1. Strabesent eye balls.
2. Absence of or sluggishness of eye lid reflex.
3. Relaxed shoulder joint muscles (elbow still slightly rigid.)
4. Regular breathing established usually preceded by a diaphragm spasm and a momentary cessation of respiration.

Signs of Too Great a Depth:

1. Central fixation of eye balls.
2. Complete relaxation of elbow.
3. Nausea during or after administration of anaesthetic.

THOSE WITH ULCERS !

THE black coffee which is a favourite early morning eye-opener for many Americans and the popular caffeine-containing carbonated beverages which many more take for between meal pickups are bad medicine for the one out of ten in the population who has stomach ulcers or is ulcer-susceptible. Excessive use of caffeine may help to cause ulcers in these susceptible persons.

Scientific evidence for this was presented by Dr. J. A. Roth, Dr. A. C. Ivy and Dr. A. J. Atkinson, of Northwestern University Medical School at the meeting of the American Medical Association.

Caffeine, they found, stimulates production of strongly acid stomach juices rich in pepsin. In normal persons this stimulation of stomach acid output is abrupt but transient. In ulcer patients and those susceptible to stomach ulcer, the effect is prolonged. The difference is so marked that caffeine can be used to help diagnose stomach ulcer and to detect ulcer susceptibility. The test is made with a test meal of caffeine in water equivalent to two cups of coffee.

Implantation of caffeine in the muscles of cats produced stomach ulcers in 40% to 50% of the animals.

Excessive caffeine users, in Dr. Roth's opinion, are those who drink more than five cups of coffee a day and especially those who take coffee or caffeine-containing beverages between meals frequently. Coffee taken with cream and sugar or with meals is less harmful because the cream or other food acts as a buffer against it.

On a score taking coffee as 100 in stimulating stomach acid secretion, a popular carbonated caffeine-containing beverage rated 90, tea 60, coffee with cream and sugar between 59 and 60, a cereal beverage almost the same and a decaffeinated coffee between 75 and 76. The stimulating effect of these last two was due to substances other than caffeine.

The caffeine-stimulating effect that

causes trouble for ulcer patients is not the same as the stimulating effect that causes wakefulness. The latter is due to caffeine's action on the brain and central nervous system, but the effect on the stomach, Dr. Roth believes, is directly on the cells that line the stomach.

In the cats the stomach lining showed diffuse areas of peeling and bleeding erosion, which led Dr. Roth to call this effect of caffeine a cell poisoning.

Pointing out how to avoid flare-ups of ulcers of the stomach and duodenum, Walter C. Alvarez, M.D., Rochester, Minn., says in *The Journal of American Medical Association* for July 29 that "It is suggested that when a patient who has had an ulcer goes through an emotional crisis he should immediately start taking food every hour or two. He shouldn't wait for the expected flare-up or hemorrhage or perforation. The extra feedings are probably most needed between the hours of 10 p.m. and 3 a.m."

Explaining the reasons for this advice, Dr. Alvarez says:

"A man of 50 who had always been well discovered one day that the man who for twenty years had been his brother-in-law, his closest friend and his business partner had been falsifying the books in order to steal from him. All that night he lay awake in great mental distress, and next day he had a big gastric hemorrhage. Another man, a physician, after examining a woman's stomach with a roentgenoscope (an x-ray apparatus for viewing the body on a screen), discovered that he had used a current of 60 milliamperes instead of the usual 3 milliamperes. After lying awake all night worrying over the expected burn and resultant damage suit he found himself almost incapacitated by the pain of a bad ulcer. Another man, when a violent strike in his factory distressed him terribly, had a big hemorrhage. A woman who adored her peppery little daughter-in-law one day inadvertently offended

her and brought down on her head a storm of abuse which nearly killed her. Next day a long-healed ulcer flared up and perforated. A woman who heard that her soldier husband had just been killed at the front promptly had a hemorrhage.

"Many such experiences will doubtless spring to the mind of every busy physician who reads these words, all illustrating what is well known today, namely that the patient with ulcer is most in danger of a flare-up or catastrophe during the hours immediately following a distressing emotional storm. Then is the time when, probably with an increase in the acid gastric secretion, and perhaps a decrease in the alkaline and neutralizing secretions that flow into the duodenum, or a combination of these two processes, the acidity of the contents of the first portion of the duodenum becomes so high that an ulcer either develops or, if present already, promptly becomes greatly deepened . . .

"Under the circumstances it would seem obvious that the time to start strenuous treatment should always be immediately after a psychic strain has come. Why should one wait until an ulcer has formed or, if present, has eaten its way into a blood vessel or clear through the wall of the intes-

tine? Why wait for disaster when it might perhaps be headed off and prevented?

"Furthermore, since it now appears probable that most of the injury to the duodenal mucosa (the mucous membrane in the duodenum) that is wrought by acid comes during those hours between 10 p.m. and 3 a.m., when, in the person with an ulcer temperament, the stomach tends to be empty of food but full of highly acid and unbuffered gastric juice, would it not be logical the evening after a nervous crisis has occurred to begin with either a constant antacid drip or the taking of food and antacids every one or two hours from dinner time on to 2 or 3 a.m.? The patient can easily set an alarm clock to wake himself perhaps at midnight and again at 2 a.m.

"For some years now I have been asking my patients with ulcer to do just this, and already some feel that the treatment has tided them over some bad crises in their lives and kept them from having a flare-up of their ulcer. Dozens of physicians with a tractable type of ulcer have told me that during the intervals in which their life goes peacefully they do not seem to need much dieting or other treatment."—*Jour. Mich. State Dental Society*.

TIME FOR ORTHODONTIC TREATMENT

by W. E. LIPSCOMB, D.D.S.

Conclusions of paper in Texas D. Jour., Nov. 1944.

1. Very early treatment tends to prolong indefinitely the period of orthodontic care, and offers no assurance of better results.

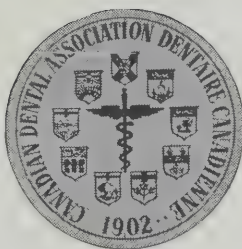
2. Unduly long periods of treatment influence unfavourably the teeth and investing tissues.

3. Evidence from practical results gathered many years after, proves that treatment to be of greatest benefit to the patient must be completed in a short time.

4. Intermittent periods of treatment are most beneficial in certain types of cases.

5. Longer periods spent in regulating malocclusions with their greater financial burden, eliminate a large portion of the population from the benefits of orthodontic services.

6. The most favourable time for treatment is the period of maximum facial growth.



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Editorials

**AN ECONOMIC VIEW OF HEALTH SERVICES UNDER
SOCIAL SECURITY**

By DON W. GULLETT, D.D.S., Secretary, Canadian Dental Association

Two extreme schools of thought on the efficacy of the social security movement in general have developed among the economists. The economy of the form in which future health services are to be rendered forms the crux of the matter in the mind of the average practitioner. Every dentist should familiarize himself with the underlying principles upon which it is proposed to build the future security. The adopted basic economic principles will ultimately determine the type of individual life to be lived by the dentist of tomorrow.

One school of economists stands by the function of government as being one of minimal control or regulation and not the entering into the real activity of the particular business itself. It is said by this group of economists that the money collected, through taxation of individuals and corporations, to provide funds for purposes of payments in social security, is not put to dynamic purposes. When the same purpose is developed through a private company, for instance, the funds collected are invested in creative enterprises which produce more wealth. The government does not do this at all with the funds it collects but merely writes out a credit book entry to itself and spends the money for running expenses. In the end analysis, the next generation is taxed to pay for the old age leisure of the generation now earning. The store houses of goods for human consumption have nothing added by

such government action and the only way the government could make true contribution would be to go into the business of farming and manufacturing on its own. However, it should be further pointed out that if the government should choose the latter course, there will then be left no field at all for the private investor and hence no real or net gain would occur.

The economists of the second school undoubtedly consider themselves as possessing the modern approach to the economic problem of human needs. More difficulty is experienced by the amateur student of economics in pinning down their statements to proven facts. After considerable study of a specific theory advanced, it is discovered that the whole theoretical treatise is perhaps based upon the premise of a condition which has been insoluble up to the present. For example, practically the entire foundation of social security rests upon the solution of the unemployment problem. It is admitted by the most enthusiastic planners that failure will occur in any complete social security program unless continuous employment can be attained which is easily understood by the casual observer and merely means in ordinary parlance—no job—no tax payment.

However, it would be most unwise to conclude that the present economic trend toward forms of social security were of a speculative nature for such is definitely not the case. It does, however, seem reasonable to conclude that in the ultimate end the amount of security legislation obtained will depend upon the total sum of the tax collected for the purpose, which it is found the traffic will stand. As a consequence, the development of health services under social security will depend upon two main factors — first, the priority of health legislation among the various security measures before the funds run low in implementing other kindred measures, and second the amount of money available for such purposes which the people are willing to pay.

If we might use that misnomer known as common sense, which is not common and seldom sense, we would point out that before some proposed legislation is enacted, governments should have the courage to definitely present the means of collecting and the total amount needed from the individual citizen to implement the same. No satisfactory reason exists why the public should not buy the commodity of legislative enactments on the same basis of value—goods versus price—as any other product.

The time is ripe for the reconsideration of the basis of dental education. That it is desirable that dental and medical students alike should be given a full university education can be taken for granted, but that need not, and in our view should not, mean that a dental student should take the same course as a medical student. The demand for trained dental surgeons, which is likely to become increasingly urgent in the future, will render it impossible to contemplate, for the majority, a course of study which would add a specialized dental course to the course for a medical degree or diploma.—Br. Dental Jour.

DENTAL CORPS NEWS

Lt-Col. Johnston W. Abraham

Lieut.-Col. Johnston W. Abraham, M.M., Canadian Dental Corps, whose promotion to that rank from Major has just been announced by National Defence Headquarters.

Lieut.-Col. Abraham is a native Montrealer where he practised his profession from 1923 until he enlisted with the C.D.C. in 1942. He served as a combatant soldier in World War I from 1916 to 1919 with No. 6 McGill Battery and, was awarded the Military Medal for gallant and distinguished services in the field.

Since August, 1942, Lt.-Col. Abraham has been employed at Canadian Dental Corps headquarters, Ottawa, where, coincident with his present promotion, he now becomes an assistant Director of Dental Services.

In civilian life, Lieut.-Col. Abraham was the Charter President of the Westward Rotary Club and was Dental Surgeon to the Homeopathic Hospital, Montreal. He is Governor of the College of Dental Surgeons of the Province of Quebec, and, an active member of the Montreal Dental Club.

Lieut.-Col. Abraham's wife and family reside in Notre Dame de Grace, Montreal.



Lt.-Col. Gordon L. Frawley, E.D.

Lt.-Col. Gordon L. Frawley was born in Toronto, educated at U. T. S. Toronto. Graduated Royal College of Dental Surgeons Toronto in the year 1920. He specialized in Dental Oral Surgery before his enlistment in the present war. He is married and has two children.

Military Record:

Served for 2½ years as a A/CSM in the last great war. Was appointed Lieutenant in R. C. A. S., C., N. P. A. M., 1926.

Appointed Commander No. 1 Bridge Coy. Active Army (R. C. A. S. C.) 1 Sep. 39.

Appointed Assistant Director Transport Aug. 1940.

Transferred to C. D. C. 15 May 41. Served in the Pacific coast until he proceeded overseas.

Commanded the first Coy., C. D. C. to enter a theatre of war as a Coy.

Mentioned in despatches in Sicily & Italy.

Returned to England from Italy in March 1944.

Was O. C. No. 4 Coy., C. D. C. on its arrival in Normandy July 44.

Returned to Canada Oct. 1944 and is now stationed at C. D. C. H. Q., Ottawa.





Captain R. C. Thompson

Captain Thompson was born on March 27, 1905 and received his early education in the Province of Quebec. During his high school days, he participated in all sports and captained two senior hockey teams.

He was graduated in dentistry from McGill University in 1927 and while in college was on the dental team which won the inter-faculty championships sports event. He practised in Montreal and was a former director of the Montreal Dental Club.

He enlisted in 1939 and proceeded overseas in June, 1941, being posted to Number 1 Dental Company. He was among the first few dentists who landed with the troops in Sicily and was the first dental officer to establish a clinic on the mainland of Europe after the evacuation at Dunkirk. He has remained in Italy since September, 1943, and has always been close to the front lines.

His wife and three children reside at Westmount, Quebec.

SUPPLEMENTARY LIST OF CANADIAN DENTAL CORPS OFFICERS AS OF FEB. 28

APPOINTMENTS

Rank, Name and Date	Civilian Address
Lieut. W. A. Robertson, 9-1-45	New Westminster

RETIREMENTS

Rank, Name and Date	Civilian Address
Capt. G. A. Redford, 15-12-44	Toronto, Ont.
Major C. S. Slack, 19-1-45	Pictou, Ont.
Capt. E. M. Fisher, 24-1-45	Huntsville, Ont.
Lieut. W. A. Quigley, 28-12-44	Calgary, Alta.

CANADIAN DENTAL ASSOCIATION NEWS

(From the Secretary's Office)

Dental Personnel in Canada, January, 1945

The annual survey of the dental personnel in Canada is presented in the accompanying chart.

The percentage of civilian dental personnel as compared with the pre-war year 1938 is believed to give the best indication of the situation respecting civilian dental services at present. The number of dentists practising in 1938 fairly represents the peace-time demand for dental services in the various pro-

vinces. It should be pointed out that the present percentage now in civilian practice represents the older age groups and consequently does not represent true dental manpower when compared to the percentage of younger dentists now in military service.

The number serving in the military forces has increased over last year by 88. This increase represents the number of appointments less the number of retirements during the interval. Practically all appointments in the Dental Corps have consisted of new

graduates from the dental schools during the year.

The total number of practising dentists for Canada, including both those in military service and civilian practice, shows an increase of 124 over last year.

Comparative figures are as follows:

1938 — 4174

1943 — 4294

1944 — 4405

1945 — 4529

The increase is due to the accelerated courses in the dental schools and also to the fact that some dentists who had retired came back into practice owing to the great need for their services. This increase is rather notable in that a review of the literature indicates a decrease in some countries.

STATISTICAL DATA RE DENTAL PERSONNEL IN CANADA

(as reported by Provincial Registrars)

AS OF JANUARY 1945

Province	Number of Civilian Dentists actually practising	Ratio of Civilian Dentists per capita Civilian population	Total Number in Military Services	Percentage of Dentists in Military Service	No. of Deaths & Retirements from Practice during 1944	Percentage of Civilian Dental Personnel as compared with pre-war year 1938
P.E.I.....	21	1/4470	7	25.0%	1	67.5%
Nova Scotia	133	1/4412	58	30.4%	1	78.7%
N.B.....	89	1/6273	25	21.9%	1	80.0%
Quebec.....	791	1/4371	198	20.0%	14	90.6%
Ontario....	1,434	1/2641	628	30.5%	30	74.2%
Manitoba....	188	1/3820	62	24.8%	6	71.0%
Sask.....	143	1/6266	62	30.2%	11	68.0%
Alberta....	168	1/5000	135	44.5%	3	71.0%
B.C.....	312	1/3000	75	19.4%	17	86.0%
Total for Canada....	3,279	1/3509	1,250	27.5%	84	76.3%

Progress Report of the Research Committee

Since the last report of the Research Committee of the C. D. A. which was submitted on August 25th, 1944, and which appeared in the October issue of the Journal, considerable progress has been made in the matter of the establishment of an Associate Committee for Dental Research under the aegis of the National Research Council.

The National Research Council considered the application of the Research Committee for the establishment of the Associate Committee at its meeting again on September 15th. As the result of their deliberations one of the three major requests was granted, namely, that a conference on Dental Research be called

by the National Research Council for the purpose of finding out what was the fundamental philosophy of the parties who were advocating the Committee.

Subsequently, on December 13th, in the National Research Council Chambers a sub-Committee appointed by the Research Committee of the Canadian Dental Association met with the President of the National Research Council and three representatives of the Council appointed by him and a full discussion took place on the subject of Dental Research.

On December 15th, at the regular meeting of the National Research Council the President of the Council reported the findings of the meeting of December 13th, and the main

principle of the original request was granted, as indicated by the following statement contained in a letter from the President of the National Research Council to the Chairman of the Research Committee of the Canadian Dental Association, namely:-

"The council has accepted the request of the Canadian Dental Association for an Associate Research Committee because we are genuinely interested in fostering the research spirit in the dental profession".

It is confidently expected that the final step of setting up this important research committee will be taken by the National Research Council at its meeting in March 1945. It is hoped that following this meeting the National Research Council will announce the membership of the Committee.

The Research Committee of the Canadian Dental Association wishes to express to the Dominion Dental Council its sincere thanks for the generous donation of \$5000.00 for the use of the Research Committee. This donation is to be made available at the rate of \$1000.00 per year for five years.

This magnificent gesture on the part of the Dominion Dental Council will give further stimulation to the spirit of research within the profession.

R. G. Ellis, Chairman

C. D. A. Research Committee

DOMINION INCOME TAX

Returns by Members of the Dental Profession

As a matter of guidance to the dental profession and to bring about a greater uniformity in the data to be furnished to the Income Tax Division of the Department of National Revenue in the annual Income Tax Returns to be filed, the following matters are set out:—

Income

1. There should be maintained by every member of the dental profession an accurate record of income received, both as fees from his profession and by way of investment income. The record should be clear and capable of being readily checked against the return filed. Records should be maintained in books kept for the purpose.

Expenses

2. Under the heading of expenses the following accounts should be maintained and records kept available for checking purposes in support of charges made:

- (a) Dental and like supplies;
- (b) Office help, nurse, maid and book-keeper; laundry and malpractice insurance premiums. (It is to be noted that the Income War Tax Act does not allow as a deduction a salary paid by a husband to a wife or vice versa. Such amount, if paid, is to be added back to the income);
- (c) Telephone expenses;
- (d) Assistants' fees;

The names and addresses of the assistants to whom fees are paid should be furnished on or before the last day of February in each year on Income Tax Form known as Form T.4, obtainable from the Inspector of Income Tax. (Do not confuse with individual return of income, Form T.1, to be filed on or before 30th April in each year);

- (e) Rentals paid;

The name and address of the owner (preferably) or agent of the rented premises should be furnished. (See (b));

- (f) Postage and stationery;
- (g) Depreciation on dental equipment;

The following rates will be allowed provided the total depreciation already charged off has not already extinguished the asset value:—

Instruments—Instruments costing \$50 or under may be taken as an expense and charged off in the year of purchase;

Instruments costing over \$50 are not to be charged off as an expense in the year of purchase but are to be capitalized and charged off rateably over the estimated life of the instrument at depreciation rates of 15 per cent to 25 per cent, as may be determined between the practitioner and the Division according to the character of the instrument, but whatever rate is determined upon will be consistently adhered to;

Office furniture and fixtures — 10 per cent per annum;

(b) Proportional expenses of dentists practising from their residence—

(a) owned by the dentist;

Where a dentist practises from a house which he owns and as well resides in, a proportionate allowance of house expenses will be given for the study, laboratory, office and waiting room space, on the basis that this space bears to the total space of the residence. The charges cover taxes, light, heat, insurance, repairs, depreciation and interest on mortgage (name and address of mortgagee to be stated);

(b) rented by the dentist—The rent only will be apportioned inasmuch as the owner of the premises takes care of all other expenses.

The above allowances will not exceed one-third of the total house expenses or rental unless it can be shown that a greater allowance should be made for professional purposes.

(i) Sundry expenses (not otherwise classified)—

The expenses charged to this account should be capable of analysis and supported by records.

Claims for donations paid to charitable organizations will be allowed up to 10 per cent of the net income upon submission of receipts to the Inspector of Income Tax. This is provided for in the Act.

The annual dues paid to governing bodies under which authority to practise is issued and membership association fees not exceeding \$75, to be recorded on the return, will be admitted as a charge.

The cost of attending post-graduate

courses or dental conventions will not be allowed.

(j) Carrying charges;

The charges for interest paid on money borrowed against securities pledged as collateral security may only be charged against the income from investments and not against professional income.

(k) Business tax will be allowed as an expense but income taxes will not be allowed.

(l) Automobile expense;

Taxi fares incurred for purely professional purposes will be allowed. The expenses including depreciation in respect of a personally owned car will not be admitted.

Payment of Tax

3. Individuals whose income is more than 25% derived from sources other than salary or wages are required to pay each year's tax by quarterly instalments during such year on the following dates, 31st March, 30th June, 30th September and the 31st December.

Instalment Remittance Forms should be obtained from the Inspector of Income Tax.

Dentists under Salary Contract

4. A salary is considered as "net" for Income Tax purposes. The salary of a Dentist is therefore taxable in full without allowance for membership fees or annual dues to governing bodies, and other like expenses. If the contract with his employer provides that such expenses are payable by the employer, they will be allowed as an expense to the employer in addition to the salary paid to the assistant.

NEWS FROM THE PROVINCES

NOVA SCOTIA:

Refresher Course

A successful three day refresher course in Dentistry for Children opened in Halifax on Wednesday Feb. 28, with an attendance of over seventy drawn from the three Maritime Provinces. The course was held under the auspices of the Faculty of Dentistry of Dalhousie University with the active co-operation of the Canadian Dental Hygiene Council,

the Nova Scotian Dental Association and the Department of Health for Nova Scotia.

Lectures on the various new developments in the field of children's dentistry were given by Dr. Paul K. Losch of Harvard School of Dental Medicine, Boston; Dr. Stewart A. McGregor of Toronto; and by Dr. E. G. Young, Dr. O. L. Croft, Dr. Stanley Bagnall of Dalhousie University; and Dr. Ralph Dalglish of Sydney, N.S.

A pleasing feature of the course was an

informal dinner held at the Nova Scotian Hotel, presided over by Lean Woodbury at which the guest speaker was Rev. William Hills, R. C. N. Senior Naval Chaplain at H. M. C. S. Peregrine.

Halifax Dental Society

The monthly dinner meeting of the Halifax Dental Society was held at the Nova Scotian Hotel on February 8. The speaker was Dr. S. G. Ritchie, Professor of Prosthetic Dentistry, Dalhousie University, who spoke on the subject of "Balanced Occlusion and Complete Denture Construction".

The development of comfortable well fitting dentures was treated by the speaker purely as a bio-engineering problem, never easy and often extremely difficult to solve satisfactorily. The main problem was broken down into constituent and sequential minor problems of which balanced occlusion is merely one, but one of immense importance in the finished result.

The various techniques already in use, more or less successfully, were briefly discussed and then the underlying principles involved in the problems presented by mechanical occlusion of artificial teeth as the speaker understands them, were presented, and their mathematical and dynamical treatment considered. By drawings, the tremendous increase in the amount of force, when applied to the inclined planes of the natural posteriors as well as the anterior teeth, was stressed, and unless it was neutralized or opposed in some way, disastrous results would surely follow. Since we find the same effects in an exaggerated form with artificial dentures a critical study of the forces involved was made favourable to their retention. The undesirable forces met with in practice were also discussed, and methods of neutralizing, balancing out, or eliminating them were presented and illustrated by drawings. Finally a complete set up of full upper and lower dentures on an adaptable articulator, the work of one of the Dalhousie students, was shown, illustrating the principles discussed and used by the speaker.

BRITISH COLUMBIA:

Vancouver Dental Society

This society held its regular monthly dinner meeting, March 6 in the Hotel Vancouver.

The President, Dr. Norman Scott presided.

Elected to membership in the Society were Dr. J. L. Steeves, a graduate of Northwestern University, and Dr. J. O. Westlake, a graduate of the University of Toronto.

A very interesting letter from Captain Billingsley was read by the Secretary. This letter was to acknowledge receipt of a parcel sent for Christmas and made some very interesting observations regarding Army life in Italy where he is stationed.

The guest speaker was Dr. John Clay of Calgary who read a paper on "Practical Points on Exodontia". In addition to giving the members of the Society some very useful points re the above subject, Dr. Clay brought a message of goodwill to B. C. from Alberta. He also showed a motion picture of unusual cases in oral surgery, and some interesting views taken around Calgary.

It is a fine gesture to have interchange of clinicians and essayists between the different provinces of Canada, particularly by men of the caliber of Dr. Clay.

Victoria Dental Society

The following were elected as officers of the Victoria Dental Society for 1945:

President—Dr. W. B. Milburn.

Vice-Pres.—Dr. W. A. MacDonald.

Sec.-Treas.—Dr. R. J. O'Neil.

Executive—Drs. R. A. Johnson, F. J. Moore, and P. J. Rumball.

Drs. F. C. Harwood, A. P. Salter and J. L. Magrath were welcomed as new members to the society.

Dr. R. J. O'Neil presented an interesting paper with his own slides on "Interosseous Anaesthesia". Dr. O'Neill's presentation contained many original ideas and simplified the technique of interosseous anaesthesia for those cases where local anaesthesia is sometimes difficult to obtain by other means.

The February meeting was addressed by Dr. Bernard Jankelson of Seattle who presented a very helpful table clinic on Acrylic Jacket Crowns and Inlays. Dr. Jankelson stressed the point that an acrylic jacket preparation did not require removal of much tooth structure, and a preparation closer to parallel, rather than tapering, was preferred. He used an eleven and a half or twelve wheel

bur for formation of the shoulder, and eliminated the wedge by cutting down to the shoulder with wet or dry discs. Big angle chisels were used to complete the preparation, which he said was always carried under the gingival free margin. He used an eye dropper for placement of the wax in forming his crown.

ALBERTA:

Dental School Classes

The last class to graduate at the Dental School of the University of Alberta under the accelerated course will complete its work during the summer. There will be no senior class in dentistry next fall and no graduates in the spring of 1946.

Due to the increasing amount of work required of the students, the length of the sessions in future will be eight months instead of seven. As a result, classes will commence about the middle of September.

Edmonton Dental Society

This Society held its regular monthly dinner meeting in the MacDonald Hotel on March 6, with an attendance of forty-four.

Dr. C. H. Lipsey, President, introduced and welcomed the guests, among them being Major Quigley; Dr. Dunbar, recently located at Camrose; and Dr. Murray of Peace River who has located in Edmonton. The University of Alberta fourth year dental students were represented by Miss Klasson and Mr. Harrison.

Dr. Vic. Lloyd, Vice-President of the Western Canada Dental Society, enlightened the Society on matters relative to the convention being held in Winnipeg in June; while Dr. R. A. Rooney, President of the Canadian Dental Association, reviewed some aspects of income tax entanglements.

The speakers of the evening were the popular trio from the American Dental Corps who are located at the Station Hospital in Edmonton. They have done much to foster that spirit of fraternal friendship between nations which is so essential in a great profession, as is ours.

Captain A. N. Carr, of Long Mont, Colorado, spoke on "Immediate Debentures," exemplifying his paper by well prepared models.

Captain M. T. Bach of Cincinnati, Ohio, dealt with "Amalgams" stressing the importance of never touching the amalgam with the hands, proper condensation, proper adjustment of matrix bands and freedom from moisture from finish of mixing until insertion.

The amalgam may be made by a mechanical mixer, a mortar and pestle—the mortar with a flat bottom only—or in a thumb stall, and should never go over 3 or 4 minutes from the finish of the mix until insertion.

Major C. P. Dawson of Fort Payne, Alabama, brought the evening to a suitable climax with his paper on "Impactions." Major Dawson stressed the importance of a simple technique with as little incision of tissue as possible and the minimum trauma to surrounding bone. Dr. West of Seattle had been his greatest guide, after trying the methods of several outstanding men. This paper was further explained by suitable drawings and an excellent armamentarium as used in the A.D.C. Appreciative remarks were tendered to the speakers by Drs. W. S. Hamilton and Alex Gemeroy.

Dr. C. H. Lipsey extended a hearty vote of thanks to those taking part.

Dental Nurses

The sixth meeting of the Calgary Dental Nurses' Association, took the form of a social evening.

The girls met at the Capital Theatre at 6.30. The picture "Casanova Brown" was enjoyed by all, and following the show the members went to one of the nurses' homes where refreshments were served.

A very successful meeting!

SASKATCHEWAN:

Saskatoon Dental Society

At the January meeting, the members enjoyed the presence of their wives at a dinner bridge in the Bessborough Hotel.

In February, Major Saich of the C. D. C. gave an address on "Diagnosis and Symptoms of Necrotic Gingivitis" elaborating the bacteriological factor.

In March, Major Locke of the C. D. C. dealt with the "Prognosis and Treatment of Necrotic Gingivitis" giving particular attention to the functional factor.

The splendid lectures by these two members

of the Canadian Dental Corps were greatly appreciated by the Society.

MANITOBA:

Winnipeg Dental Society

The February meeting of the Winnipeg Dental Society took the form of a round table discussion on Compulsory Health Insurance. Those taking part were Dr. M. H. Garvin, Editor of the *Journal of the Canadian Dental Association*, Dr. J. M. Grahame, who has returned to private practice after several years' duty with the Canadian Dental Corps, and Dr. J. F. Morrison, Secretary of the Manitoba Dental Association, Dr. Garvin acting as chairman of the discussion.

An interested listener was Mr. P. W. Dawson, Manager of the Manitoba Hospital Service Association, which has been in operation for several years; and with the recently organized Manitoba Medical Service now constitutes a form of Voluntary Health Insurance for the Province of Manitoba.

Several questions were posed, 8 in number, as follows:—

1. The C. D. A. has not taken a definite stand in favour or against Compulsory Health Insurance but has agreed to co-operate if such a plan is adopted. Should the C. D. A. take a definite stand in favour of Compulsory Health Insurance?
2. If Compulsory Health Insurance is adopted should dentistry be included?
3. Should all income groups be included in the plan or should only those in certain low income brackets participate?
4. The C.D.A. favours limiting the state dental service to children up to a certain age, increasing the age as dental personnel is available. Is this plan satisfactory or should some service be granted to all?
5. In the case of adults, should the state dental service be a full dental service or as limited as possible?
6. Should the dental service be rendered in the private office on a fee basis, in the private office on a per cent basis, or in health centres with dentists on a full time salary with a pension provided at the end of the road?
7. If services are to be rendered at all in private offices, should the government set the

fee and insist on the work being done upon this fee basis, or should patients be allowed to make any arrangements they like with their dentist, the government paying only a portion of the cost if finer work is desired?

8. Should the hygienist or registered dental nurse be legalized to give prophylaxis and undertake health educational programs?

As might be expected there was not complete agreement about these questions. The first three were agreed upon the answer being yes. No. 7. It was agreed that the patient should have liberty to pay for more expensive service. Nos. 4, 5, 6 and 8 were too controversial for unanimity.

Mr. Dawson presented both the hospitalization and medical service plans which are increasing in popularity so that Manitoba has health insurance in which every resident of the province may participate if they have the price of admission and are not too elderly. The hospitalization is available up to 70 and the medical service up to 65.

Dr. W. J. Robb, president of the Society, presided.

ONTARIO:

Dr. Irwin Retires

Dr. J. H. Irwin of Collingwood has retired after fifty-two years of active practice in dentistry. He has always taken an active part in the life of the community. For some time he was a member of the Board of Education and was chairman of that body. He has also been associated with the Public Library Board, serving as chairman. For ten years he was president of the Golf and Country Club. He served as an executive member with baseball and hockey clubs and has given loyal support in all of these organizations. For thirty years he was a member of the Blackstone Hunt Club and also carried membership in the Peterborough Hunt Club.

It is the sincere hope of his friends that he may be privileged to enjoy many years of happiness, the fruit of his long years of service.

Ottawa Dental Society

Dr. Frank Cole of Toronto was the speaker at the February meeting of the Ottawa Dental Society held in Chateau Laurier. Dr. Cole

spoke on the subejct "When, Why and How to Rebase Debentures" the address being illustrated by motion pictures and slides.

Ontario Dental Nurses' and Assistants' Association

Patriotic Donators and Knitters Club:

We wish to say "thank you" to our friends who responded so generously to our appeal in the January issue of the Journal of the Canadian Dental Association. We have received ten thousand de-capped carpules from out-of-town. Metal topped carpules are *not* saleable. We have, however, an open market for any rubber topped carpules. They are urgently needed . . . send them collect to Mrs. Leta B. Blaber, 148½ Bloor Street, W., Toronto.

Our market for salvaged tinfoil is now closed.

On Sunday, March 11, thirty-five members visited the Red Chevron and distributed to the patients 400 magazines and books, 1200 cigarettes, 400 cakes and cookies and 175 chocolate bars.

Toronto Affiliated Association: On Monday, March 5, a number of our members enjoyed a talk on "Newly Discovered Drugs" by Dr. Florence McConney of the Women's College Hospital, Toronto and the Health League of Canada. Plans were made for another Rummage Sale to be held on May 5.

Olive Fuller left for destination X on March 11 to receive further instructions regarding her trip to India. Olive has been on 48 hour call since last August and word finally came through that she could sail . . . or fly . . . in the very near future. A number of the Toronto members were included in the many friends who were at the Union Station to say good-bye. Our thoughts, prayers and good wishes go with Olive.

Hamilton Affiliated Association: Dr. I. A. Clark of the Hamilton Public Health Department addressed us on the work of the Public Health Department. Convention plans were discussed and the date for the final salvage drive set for March 14. This month's raffle proceeds were donated to the P.D.K.C.

London Affiliated Association: The meeting on March 8 was held in the office of Dr. F. Kennedy. Misses Loretta McCaughey and

Angela Kelly were the hostesses. Mr. Wm. McTavish, Toronto, spoke on "Association Values". At the conclusion of his talk, he demonstrated the Oil Bath Technique for sterilizing and lubricating the handpiece.

Windsor Affiliated Association: Dr. Rene Rochon, University of Detroit, addressed our members on the "Developing of X-rays" on Tuesday, February 13. Flowers were sent from our Association to Mrs. Edwin Biehn as an expression of our sympathy in her recent bereavement.

Kitchener Affiliated Association: Miss Florence Allison was hostess to the Kitchener Dental Nurses and Assistants on February 14. The Vice-President, Miss Larry Ohlheiser was in charge of the meeting and Dr. H. Mason, Galt, Ontario, had many interesting and practical suggestions in his talk entitled "Tips For Your Daily Routine" and "Wise Investments For Your Money."

Niagara Falls Affiliated Association: The February meeting was held in the home of Mrs. Grace Zoellner, Niagara Falls. The high-light of the evening was the Lucky Draw won by Mrs. Mary Thompson.

Brantford Affiliated Association: The February social get-together, held in the home of Belva Hogan was a delightful evening of fun and enjoyment.

Mr. J. H. Barnard addressed the March Dinner Meeting on Group Hospitalization.

Arlene Jemison Greeny.

Post-Graduate Courses Prove Popular

That dentists are anxious to extend to patients the benefits accruing as the result of the latest advances in the theory and practice of their profession, is abundantly evidenced by the number of applications for registration received for the several post-graduate courses recently instituted in the Faculty of Dentistry, University of Toronto. So numerous were these applications that all who desired to attend the classes could not be accommodated; many had, of necessity, to be deferred and included in contemplated fall classes. Indeed, it is abundantly manifest that the present dental curriculum must be enlarged so as to include a permanent institu-

tion, post-graduate instruction for all desiring its benefits.

In February a three-day post-graduate course was conducted in Dentistry for Children and the class was soon filled with dentists from all parts of Canada as far distant as British Columbia. Another class, early in March was given a week's instruction in Periodontology. Here, again, the large number of applications for registration testified to the wide-spread interest in this important phase of dental treatment. Dentists registered from many Canadian cities and from such distant points as Cleveland, Ohio; Dayton, Ohio; Albuquerque, New Mexico; Connersville, Indiana; Plainfield, Indiana; Pittsburgh, Pennsylvania and Fort Collins, Colorado. A second class is planned for the fall term.

Much interest at present is centered in the course in Dental Surgery and Anaesthesia, scheduled for one week commencing April 16. Here again applications exceed accommodation and a second class is being ar-

ranged for the fall term.

With the termination of the present world conflict, it is expected that dentists now on active service, will desire instruction designed to assist them for rehabilitation into civilian practice. To this end the Faculty of Dentistry, University of Toronto, is planning short courses designed to meet the immediate needs of the dentists now in the Forces who will soon be withdrawing from the Army. To give this instruction, an enlargement of the present staff, accommodation and equipment is imperative; this will, it is expected, be made possible with the acquisition of government aid.

2T3 Class Reunion

There will be a reunion dinner on Monday evening, May 28, during the Ontario Dental Association Convention.

Those expecting to attend be sure to reserve your place at the table by notifying J. C. Fullerton, 2 College Street.

GENERAL NEWS

High Point of 1944 A.D.A. Membership is 60,665

During 1944, the American Dental Association reached a peak of 60,665 members in all classes, according to a recent announcement by the General Secretary, Harry B. Pinney. This membership, the largest in the history of the Association, represents an increase of more than 10,000 members in the past five years.

Women in Dental School

About twenty years ago women began to enter the dental school of the University of Montevideo. This institution is supported by the government and is free to all. For this reason, no one could prevent women attending the dental school. They were accepted on an equal footing with men; and I don't believe there was ever any prejudice against them.

At the beginning, the number of girl students was small but the enrolment has been increasing every year. Today, as an average, the percentage of women dental students

runs from forty-five to fifty per cent of the enrolment, which is almost as high as the percentage of women dental students in the University of Chile.—Amelia Villemur in Oral Hygiene.

Puppet Pedagogy

The Audience: Mexicans of all ages, gathered around a miniature theater set up in a public square, a factory, or a harvest field.

The Scene: a human mouth.

The Play: three fantastically ugly puppets, representing bacteria, loosen a lower tooth, look for a ladder to knock out an upper. Enter the dentist. Enter also a lady puppet in a tubelike dress, a gentleman with hog-bristled pate. Senorita La Pasta (toothpaste) and Senor El Cepillo (toothbrush) kill the dental gremlins. In a quick change of scene the magnified mouth vanishes, its possessor reappears. An applecheeked urchin named Comino, he promises to brush his teeth forever after. As the curtain drops, his audience presumably vows to do just as Comino does.

Comino, Mexico's most popular puppet, is

also one of the Mexican Ministry of Education's most effective mass-educators. He has a free-and-easy way with his audiences, dangling his legs over the platform, challenging kids ("Hey, you with the glasses!") to come up and recite. When the government first tried to give toothbrushes away free, nobody would take them. But when Comino put on his show and squeaked that "No boy or girl who won't brush his teeth is a friend of mine," both children and adults lined up. The original Comino was created in 1933. Today several hundred Cominos are off to battle against Mexican illiteracy.

From: Time, December, 25, 1944, per A.D.A. Release.

Need of Dental Care

It is generally thought that not over 20 to 25 per cent of our people receive anything like adequate dental service. The remaining 75 to 80 per cent of the population, therefore, get little more than emergency care, if that much. Those who do receive anything like the care they need are, for the most part, the moderately well-to-do and the wealthy members of our society.

The amount of dental care received has been found to rise steadily as income rises, while the proportion of those who go without dental care, except in emergencies, decreases. Studies of the frequency of dental services have shown that people with incomes below \$1,200 receive only about a fifth of the service obtained by those with incomes of \$5,000 or more. There is no evidence, however, that the poor need less dental care than the well-to-do and the wealthy; on the contrary, they need more. Nor is there any indication that people in rural areas need less care than those who live in urban areas; they merely receive less.—Senator James E. Murray of Montana in Ill. D. Jour.

Delay in Publishing Dental Journal

Owing to paper shortage the American Dental Association has decided not to launch Dental Pictorial until the paper situation eases up.

Oral Penicillin

It is possible to attain serum concentrations of penicillin after oral administration compar-

able to those attained after intramuscular injection by the use of approximately five times as much penicillin. As the concentrations attained following the ingestion of penicillin by four different methods were all of the same order of magnitude, it would seem that the present problem in oral administration is analogous to that with intramuscular administration, i.e., to find the ideal vehicle whereby the duration of the serum concentration can be prolonged.—Science.

Dentists' Credit Following the War

The Government of the United States has announced that *each dentist in uniform will have a "credit" of \$2,000 on hand with the Veterans' Administration at war's end.* The government will guarantee the first \$2,000 of any loan of any amount that the dentist wants to make, will limit the interest to 4 percent and will pay the interest on the first \$2,000 for the first year.

Electron Microscope

The Canadian National Research Council has installed the latest type of electron microscope in its laboratories at Ottawa. This instrument and one developed in the department of physics of the University of Toronto are the first electron microscopes to be used in Canada. A third microscope will be installed at McGill University.

Student Quotas in Dental Colleges

The following statement was issued today (Saturday) by the Board of Trustees of the American Dental Association, meeting in semi-annual session in Chicago:

"The Board of Trustees of the American Dental Association is not authorized to speak for the American Dental Association, as that authority rests with the House of Delegates, which is not in session at this time.

"The Board of Trustees is of the opinion that the members of the Dental Profession, and the Association, are opposed to a quota system which will discriminate against students on the basis of race, religion, or on the basis of origin, and indicate their adherence to the American principle that all men, regardless of race, creed or colour are entitled to equal opportunity, and that their fitness to practice Dentistry shall be determined

solely by their capacities and attainments."—A.D.A. Release.

The Partisan Dentist

This feature of life in a Slovenian town was given by Kenneth Matthews, Combined Press correspondent, in a despatch from Yugoslavia:

The biggest surprise was the sign "Dentist" in the main street and the long queue of patients. One expects partisans to be immune to toothache, so I looked in on the dentist. I found a smiling woman with greying hair, who told me she was perhaps the only civilian dentist in liberated Slovenia. People came in from miles around.

The army also sent her a lot of work. She showed me piles of chits signed by partisan officers.

It was a perpetual struggle against shortages of materials. The engine squeaked for lack of oil, there were no nerve instruments, and practically no amalgam or cement for fillings.

She dived into her "going away bag"—packed for emergency departure—to show me a precious bottle of porcelain cement which the Allies had sent in—perhaps a fortnight's supply.—D. Mag. and Oral Topics.

Bracelet of "Molars"

Miss Ruth Grant of Camp Maxey, Texas, receptionist in the dental clinic, has a bracelet of third molars which were extracted from soldier patients.—Toronto Telegram.

The Current Status of Vitamin D

The Council on Dental Therapeutics of the American Dental Association has authorized publication of the following report.

Donald A. Wallace, Secretary.

It has been rather clearly demonstrated that vitamin D is of value in the formation of the hard dental structures, including the teeth themselves.

Evidence which would indicate that this vitamin aids in the maintenance of the fully formed tooth or in the prevention or retardation of dental caries at any stage of its progress is not supported by observations which have passed beyond the controversial stage.

This being the case advertising which claims that the ingestion of milk or milk products, with or without vitamin D, will aid in the prevention or retardation of dental caries tends to jeopardize the reputation of these foods, since persons who use them liberally are not necessarily free from dental decay or other dental disease.

If and when it is shown beyond reasonable doubt that vitamin D or products containing it are useful in maintaining normal tooth structure or in the prevention of dental disease, the Council on Dental Therapeutics will wish to foster as wide knowledge of such findings as possible. For the present, advertising claims for vitamin D as a factor in the prevention of tooth decay are not acceptable to the Council on Dental Therapeutics. J.A.D.A. 32:224 Feb. 1, 1945.

IN MEMORIAM

W. H. Ibberson, D.D.S., of Vancouver, B.C., died on March 7. He came to Vancouver two years ago from Saskatoon where he had practised for a number of years. He was born in Manchester, England, and while in Saskatoon was Past Grandmaster of Imperial Lodge No. 60 A.F. and A.M. and also a member of the Scottish Rite.

Dr. Ibberson is survived by his widow, one son, Dr. John R. Ibberson, of Vancouver, and a daughter, at home.

Eugene B. Eaton of Wolfville, Nova Scotia, aged 66, died March 12, due to an accident at Safety Harbor, Florida, where

he was spending the winter.

Dr. Eaton's two sons are physicians in India.

J. Harry Reid of Toronto, Ontario, aged 53, died suddenly March 15. He was graduated from the Faculty of Dentistry, University of Toronto, in 1916. He served with the Canadian Army Dental Corps in the First Great War and in 1919 established a practice in Toronto. He had been associated with the school dental clinics, Department of Public Health, for 25 years.

Dr. Reid is survived by his widow, his mother and a sister.

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516, est, rue Sherbrooke, Montréal.

Manifestations Réflexes

par VIGER PLAMONDON, D.D.S., M.Sc.D., Québec

Mademoiselle V. L. . . , âgée de 33 ans, 110 livres, 5 pds et 5 pcs., se présente à notre bureau pour examen buccal sur la recommandation d'un oto-rhino-laryngologiste. La patiente est nerveuse, pâle; elle se plaint de douleurs aux oreilles, aux temporaux tout en s'irradiant jusqu'à la base du cou, et ce, depuis 15 ans.

Histoire du Cas.

La patiente nous assure qu'il y a 13 ans, elle subit une anesthésie générale pour l'ablation totale des 27 dents restantes. Quatre mois plus tard, elle fit faire deux pièces de prothèse; elle nous dit que la pièce du haut ne lui causa jamais de trouble, mais qu'il en était différent de celle du bas. C'est de ce moment surtout que les douleurs furent plus prononcées. Elle garda ces pièces pendant 18 mois en faisant toucher sa pièce du bas de temps à autre. Constatant que les douleurs étaient toujours présentes, elle décida d'aller voir un autre confrère et se fit faire une nouvelle pièce du bas avec l'espoir d'un soulagement. . . . Peine perdue . . . deux années passèrent sans aucune amélioration.

Changeant de localité pour son habitat, elle eut recours à un troisième confrère pour la fabrication d'une autre pièce du bas. Elle obtint, cette fois, une meilleure adaptation, mais les douleurs demeurèrent constantes. En désespoir de cause, elle crut que ses oreilles fussent la vraie cause de tout son mal. De passage à Québec, elle consulta un oto-rhino-laryngologiste. Celui-ci, après un examen minutieux, ne trouva rien d'anormal du côté de ses oreilles, mais il douta d'une cause indirecte et lui suggéra de voir un chirurgien-dentiste. La patiente de lui dire: "Je n'ai plus de dents depuis 13 ans et je porte les pièces de prothèse que voici." Le spécialiste insista sur

son diagnostic en disant que ses oreilles étaient en parfaite condition, mais qu'il pouvait bien y avoir relation de cause à effet. Elle nous est alors référée pour examen buccal.

Examen Buccal.

L'aspect buccal démontre une bouche totalement édentée. La crête alvéolaire et la forme de la voûte palatine présentent un cas idéal pour l'adaptation d'une pièce de prothèse. A la mandibule, nous constatons des excroissances osseuses sur la crête gingivale, tant à droit qu'à gauche, dans les régions des canines et des prémolaires. Ailleurs, le tout est normal.

Ce travail terminé, nous procédons à l'examen radiographique du maxillaire supérieur et la mandibule au moyen de pellicules occlusales, quitte ensuite à recourir aux pellicules dentaires ordinaires (intra-buccal) pour détails et précisions, et ce, sous des angles différents. De fait, les deux méthodes furent employées avec le résultat suivant:— . . . Présence de 5 dents incluses à la mandibule. (Figure No-1) savoir:

Côté droit: 2 bicuspidés et une canine.

Côté gauche: Une bicuspide et une canine.



Figure No-1
Avant l'intervention.

Le tout est dans une position oblique en s'appuyant les unes sur les autres. Les apex semblent pénétrer dans les canaux dentaires inférieurs et faire pression sur les nerfs dentaires inférieurs de gauche et de droite, et partant, procurant des douleurs réflexes du trijumeau et à ses ramifications.

Deux raisons motivent leur ablation. La première exige que l'on ne laisse pas de dents sous une pièce de prothèse. La seconde est basée sur les articles des confrères: (1) Dr. L. G. Gardner, chef de la clinique dentaire Mayo, Rochester, Minn. (2) Dr. Lionel V. Swift, chef de la clinique des Vétérans à Hines, Illinois. Enfin (3-4-5) sur les trois conférences entendues de la part du Dr. Lee Roy Main, professeur de radiologie et de pathologie à la Faculté Dentaire de L'Université de St-Louis, Mo.

Traitement Pré-opératoire.

La patiente est hospitalisée pour l'ablation chirurgicale des 3 dents incluses du côté droit seulement, à cause de la grande possibilité de fracturer pathologiquement la mandibule mince et étroite. Après examen des urines et de la coagulation sanguine, nous avons prescrit du lactate de calcium. Le matin même de l'intervention, nous avons administré $1\frac{1}{2}$ grains de nembutal.

Modus Operandi.

Après trois tentatives infructueuses pour l'administration d'anesthésie régionale avec trois solutions différentes, dues, semble-t-il, à l'idiosyncrasie, nous avons opté

pour l'anesthésie générale à l'éther (méthode intra-trachéale) afin de faciliter d'abord une meilleure absorption de l'anesthésie, ensuite pour donner une visibilité parfaite du champ opératoire; enfin pour permettre l'installation de la gaze obturatrice aussi loin que possible sans crainte d'étouffer la patiente.

Le 3 novembre 1941, nous procédons à l'ablation de la manière suivante:

- 1 — Une longue incision horizontale fut faite sur la crête alvéolaire depuis l'emplacement de la première molaire et s'étendant jusqu'à la latérale.
- 2 — A chacune des extrémités de cette dernière, nous avons pratiqué une incision verticale du côté labial et s'étendant jusqu'au repli muqueux, afin d'exposer toute la partie de l'os intéressé.
- 3 — La table externe de la mandibule fut enlevée au moyen d'un "IMPACTOR". Une extrême précaution fut prise pour ne pas fracturer ni traumatiser la face interne de la mandibule.
- 4 — Au moyen d'élévateurs très fins et sans grande pression, la seconde bicuspid fut enlevée la première, labialement, ensuite les deux autres.
- 5 — Toute trace d'aspérités alvéolaires enlevées avec un rongeur et la toilette de la cavité terminée, la blessure fut imprégnée de sulfanilamide et suturée par 3 points de ligatures. Catgut No-0.
- 6 — Au réveil de la patiente, nous avons prescrit $1\frac{1}{2}$ grains de nembutal avec application d'un sac à glace sur la partie opérée.

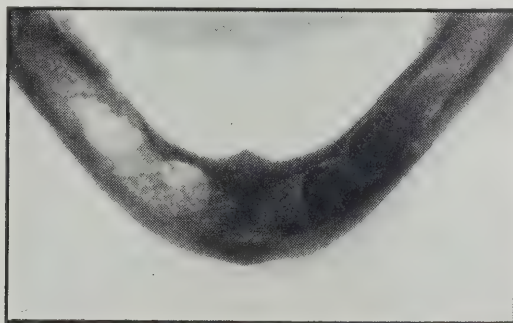


Figure No-2
Après la première intervention.

Durée de l'intervention.

Cette première intervention dura une heure et quinze minutes. L'ablation de la seconde bicuspid s'effectua en 35 minutes; la première en 15 minutes et la canine en 25 minutes. Bien qu'une fracture pathologique de la mandibule fut à craindre vis-à-vis le trou mentionnier, rien de tel ne se produisit.

La même façon de procéder fut suivie pour le coté opposé, six mois plus tard, soit en avril 1942, afin de donner plus de consistance à l'os de la mandibule. La durée de l'intervention, cette fois, fut de 45 minutes; soit 25 minutes pour la première prémolaire et de 20 minutes pour la canine.

Constataions Post-opératoires.

Au lendemain de ces interventions, nous constatons un léger gonflement des tissus mous. La patiente passa une assez bonne nuit. La température demeura normale. Les points de suture furent enlevés six jours après l'intervention et la guérison procéda normalement.

Le 5 décembre 1941, soit un mois après la première opération, les douleurs du

côté droit étaient disparues, tandis que du côté gauche elles n'étaient plus que 50% moins fortes et intermittantes au lieu de vives et continues.

Le 10 mai 1942, soit un mois après la seconde intervention, toutes douleurs à la mandibule, aux oreilles et aux temporaux étaient disparues.

Le 2 septembre 1942, nous faisons une pièce de prothèse du bas sur cette mandibule opérée deux fois.

Enfin le 8 novembre 1943, soit 2 ans après la première opération, la patiente nous rendait visite pour nous assurer d'un parfait confort. Je la réfèrai alors à son oto-rhino-laryngologiste afin qu'il puisse, comme nous, constater le bien-être de notre patiente et le remercier de sa franche collaboration.

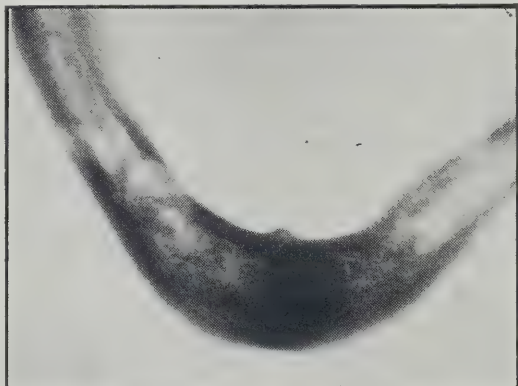


Figure No-3
Après la dernière intervention.

Conclusions.

Il ressort de ce cas de précieuses leçons, savoir:

La première démontre une belle collaboration de l'oto-rhino-laryngologiste avec le chirurgien-dentiste.

La seconde prouve la nécessité de la radiographie pour l'examen des édentés; surtout pour ceux qui se plaignent de douleurs continues ou répétées.

La troisième nous enseigne qu'il ne faut pas oublier que c'est le "TRIJUMEAU" qui innerve toute la région intéressée et que ce nerf est le plus réflexogène de l'organisme. L'apparition souvent brusque ou prolongée de telles douleurs et leur disparition rapide après le traitement bucco-dentaire militent en faveur de leur origine purement nerveuse.

La quatrième nous fait voir que NOUS ne sommes pas assez défiants des cas anormaux.

Références.

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- 2—Lionel V. Swirt, D.D.S., Muskogee, Oklahoma. "Dental Digest". Dec. 1942. "Multiple Impactions". Pages 576-577.
- 3—Lee Roy Main, D.D.S., St-Louis, Mo. 73rd Convention Ontario Dental Association, Toronto, May 1940. "Nerve Reflex Complications of Dental Origin".
- 4—Lee Roy Main, D.D.S., St-Louis, Mo. Greater New-York Dental Meeting, December 1940. "Radiographic Studies of Dental Conditions Responsible for Reflex Complications".
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Le problème de la stérilisation des pièces à main, angles droits, etc.

Par CH. HULIN

(Communication à la Société d'Odontologie de Paris, 3 décembre 1929).

Notre profession, par les efforts collectifs et individuels de ses membres, se doit de rechercher toutes les améliorations, tant dans le domaine théorique que pratique afin d'éliminer peu à peu tous les facteurs d'insuccès.

Nous sommes tous vivement intéressés par la découverte ou l'adaptation d'une technique de traitement spécifique de telle ou telle affection dentaire, ou par la mise au point d'un procédé de fabrication ou de fixation d'une prothèse. Nous y sommes tous intéressés, car la facilité d'exécution et la réussite de nos travaux journaliers en dépendent.

Il est, par contre, d'autres facteurs, impondérables ceux-là, qui, sans nuire à la qualité et à l'exécution de nos travaux, n'en méritent pas moins toute notre attention, vu les dangers indirects auxquels ils exposent nos patients.

Prenons pour exemple nos pièces à main et angles droits. Ces pièces mécaniques si fréquemment utilisées au cours d'une journée échappent, par rapport à leur anatomie délicate, aux moyens de stérilisation courante.

Ces instruments pourraient donc être les vecteurs de germes nocifs, si nous ne prenions les précautions élémentaires de stérilisation. Quels sont donc les moyens mis à notre disposition pour réaliser cette stérilisation ?

A. Bouland, en 1923, nous donne, en un article très documenté, l'historique de cette question. Il passe en revue tous les moyens utilisés pour obtenir la stérilisation des pièces à main et angles droits amovibles, dont il recommande très justement l'amovibilité, car les pièces à main fixes sur le tour échappent aux moyens préconisés.

Reconnaissons avec lui la grosse difficulté pour obtenir une stérilisation pratique de ces instruments mécaniques si délicats. Passons en revue les différents modes de stérilisation susceptibles d'être utilisés en dentisterie pour en retenir ce qui est bon et éliminer ce qui ne l'est pas.

Stérilisation par la chaleur sèche. — Excellent moyen de stérilisation, mais peu pratique vu le nombre de manoeuvres auxquelles on doit soumettre la pièce à main.

Le flamage doit être écarté.

La stérilisation au Poupinel à 150° est préférable, quoique la tyndalisation à 70° en trois fois nous semble supérieure, surtout depuis la mise au point par M. Eilertsen de pièces à main entièrement métalliques et démontables. Quoique ces innovations marquent un sérieux progrès, il nous semble que, malgré tout, ce mode de stérilisation sera toujours compliqué et lent à effectuer; en effet, le nettoyage préalable de chaque pièce mécanique composant ces instruments reste nécessaire avant de stériliser; car l'huile de graissage intérieur formerait de l'huile pyrogénée qui gripperait le mécanisme. Il faut donc soigneusement essuyer chaque pièce avant de la remonter pour la stériliser à 150°, la laisser refroidir, puis lubrifier à nouveau avec de l'huile fraîche et stérile. Toutes ces manipulations rendent ce procédé, excellent en soi, impraticable dans la vie active de nos cabinets.

Stérilisation par la chaleur humide. — La stérilisation par la chaleur humide la plus simple et la plus commode est la stérilisation à l'eau bouillante; disons tout de suite que, pour les pièces à main, non entièrement démontables, ce procédé est désastreux pour leur mécanisme, qui contient des rouages très délicats, voire même des roulements à billes. L'eau bouillante attaque les surfaces de frottement et détériore le métal qui se grave et rouille, d'où grippage. A. Bouland conseille d'ajouter à l'eau un mélange antirouille; même avec cette adjonction, le procédé, quoique certain, n'est pas recommandable.

Avec les pièces à main entièrement démontables de M. Eilertsen, le démontage, le nettoyage, le temps stérilisateur et le remontage suivi d'un graissage subsistent; aussi ce procédé devient un peu meilleur, quoique la perte de temps et l'attaque de l'eau bouillante subsistent entièrement.

Stérilisation à l'autoclave. — Bon procédé, mais ayant les mêmes défauts que les précédents, procédé lent, nécessitant beaucoup de main-d'oeuvre et de temps, qui, pour les mêmes raisons, n'est pas pratique.

Stérilisation par les agents chimiques. — Le problème serait résolu si les meilleurs antiseptiques, les plus puissants, les plus rapides n'attaquaient tous les métaux avec lesquels ils ont en contact; tel sont: les sels de mercure; les sels d'argent; l'eau oxygénée; les sels de chlore; les sels de brome; les sels d'iode; l'acide phénique.

Le formol, très actif sous forme de solution aqueuse, est à rejeter aussi, il attaque le métal et forme de la rouille, d'où grippage.

Tous ces corps chimiques, outre l'action destructive exercée par l'espèce chimique, ont pour véhicule l'eau; nous retombons donc avec ceux-ci dans les mêmes inconvénients que précédemment.

Ouvrons toutefois une parenthèse pour les vapeurs de formal provoquées par l'évaporation du trioxyméthylène à chaud en vase clos. C'est un excellent procédé, quand on dispose de temps, sinon on risque de n'agir qu'en superficie. L'intérieur de la pièce à main souvent souillée de salive échappe à ce genre de stérilisation, à moins, comme nous le disions plus haut, que l'on ne dispose d'un *long temps d'action*.

Reste le procédé Kieffer que nous considérons comme le meilleur avant d'entreprendre les recherches qui nous amènent ici ce soir.

M. Kieffer, dans son livre sur l'asepsie et l'antisepsie en art dentaire, décrit son procédé de stérilisation. Il chauffe ses pièces à main et angles droits à 100° pendant 10 à 20 minutes dans un bain d'huile de paraffine contenant 2% de thymol. Il sort ensuite ses instruments du bain chaud et les égoutte sur de l'ouate. Cette technique n'est pas la seule qui préconise le Dr. Kieffer. Il recommande de recouvrir la pièce à main d'un fourreau de caoutchouc pour la maintenir stérile.

D'autres auteurs préconisent des fourreaux d'étoffe stérilisés à l'avance, et dont on recouvre la pièce à main à chaque changement de patient. D'autres recouvrent leurs pièces à main d'un fourreau de métal que l'on stérilise à l'avance par l'ébullition.

Mais, ni le fourreau de caoutchouc, d'étoffe ou de métal n'empêche le remou provoqué par la fraise ou la brosse qui tourne, d'entraîner un tourbillon de salive à l'intérieur de la pièce à main, véhiculant ainsi, quand même, les germes de bouche en bouche.

Nous avons dit tout à l'heure que le procédé à l'huile antiseptique était bon, faute de mieux; il nécessite quand même:

1o une nettoyage superficiel à l'alcool pour enlever la salive;

2o l'immersion dans l'huile;

3o la chauffe à 100° pendant 20 minutes;

4o le refroidissement de la pièce et son égouttage sur le coton; cette dernière manoeuvre est fort longue et doit être complète si l'on ne veut pas avoir les ennuis que nous citerons plus loin. Ces quatre manoeuvres demandent du temps et l'égouttage n'est jamais parfait, il y a toujours de l'huile qui reste en excès à l'intérieur de l'instrument, huile qui devient noire et coule de long de la fraise, chassée de l'intérieur par la rotation de cette fraise. Ce cambouis est très désagréable, il tache les doigts de l'opérateur, les lèvres du patient, ainsi que les plateaux sur lesquels on dépose les fraises. Cette huile résiduelle, noire, est fort incommode et lasse rapidement du procédé.

D'autre part, le thymol proposé par Kieffer est évidemment un bon antiseptique, mais il a le tort d'être un phénol à fonction acide, et son action sur le métal, surtout à chaud, est manifeste.

Nous l'avons souvent remplacé avantageusement par de l'essence de Cajeput ou Goménol, mais cette essence elle-même s'oxyde, devient caustique avec le temps, et elle attaque le métal aussi.

Les inconvénients de toutes les méthodes propoées ou leur suffisance nous ont incité à trouver une méthode rapide, simple, pratique à l'usage de ceux qui veulent réaliser cette stérilisation, en évitant le gênant surgraissage et la perte trop grande de temps.

Le problème se pose sous cette forme: la stérilisation doit être rapide, donc ne pas démonter ni remonter l'instrument, l'antiseptique doit être efficace, donc rapide, et pénétrer partout, donc liquide. Il doit être un lubrifiant ou miscible à l'huile et en partie à l'eau pour dissoudre la salive. Il doit être employé à froid pour gagner du temps, il faut, de plus, trouver un moyen, d'égouttage efficace qui évite le surgraissage; cette phase est importante, elle doit être automatique, complète et rapide.

Voici donc la solution du problème que nous proposons:

Un lubrifiant minéral:

Huile de vaseline.

Un antiseptique neutre très actif, miscible:

le Xylol.

Un antiseptique neutre très actif, miscible à l'huile et à l'eau:

le Toluène.

Un moyen d'essorage rapide et complet du liquide antiseptique-lubrifiant laissant juste la quantité de lubrifiant pour assurer le bon fonctionnement de l'instrument:

*le Centrifugeur
ou essoreuse.*

Le Toluène ou Méthylbenzine extrait par distillation sèche du baume de Tolu ou goudron est un composé neutre de ce dernier, il dissout une forte proportion d'eau, il est éminemment antiseptique et insecticide et miscible à huile en toute proportion.

Les *Xylol*, dérivés des *Diméthylbenzines*, sont des produits d'extraction du goudron de houille, ils sont de même miscibles à l'huile, mais ils sont plus antiseptiques que le *Toluène*. Ces corps sont neutres et n'exercent aucune action nuisible sur les métaux avec lesquels ils sont en contact, ils exercent une action microbicide sur presque toutes les espèces. Le *Toluène* passe au travers des membranes par osmose, à la faveur de son affinité pour l'eau des protoplasmas.

Le *Xylol* pénètre les corps microbiens en attaquant les lipoides qui constituent les enveloppes et les noyaux cellulaires.

Le bain antiseptique lubrifiant peut être constitué par:

Toluène : une partie;

Xylol : une partie;

Huile de vaseline : une partie.

Le temps d'immersion nécessaire pour obtenir la destruction microbienne est fixé de 20 à 30 minutes. Les pièces à main et angles droits entièrement métalliques sont plongés immédiatement après l'usage pendant une demi-heure environ, il est nécessaire d'avoir au moins deux instruments de chaque espèce. La stérilisation peut se faire, entre deux rendez-vous. Si l'on possède un plus grand nombre de ces instruments, il est recommandé de les immerger tous le soir pour les retirer le matin; les maillets automatiques, fraise, angles et pièces à main peuvent être stérilisés par ce procédé.

Pour l'essorage du liquide huileux antiseptique qui reste à l'intérieur il suffit de placer ces instruments dans le dispositif réservoir, que nous avons imaginé, lui-même fixé sur la partie centrale d'un centrifugeur du commerce, puis de lui faire subir la centrifugation.

Le liquide imprégnant, sollicité par la force centrifuge, est chassé par les deux bouts hors de l'instrument. Ce liquide est collecté au fond du réservoir et décanté le soir après le labeur quotidien.

Les pièces à main ainsi traitées sont à la fois stériles et lubrifiées sans surcharge huileuse, donc propres à l'usage pour lequel elles sont destinées.

L'ODONTOLOGIE,
Janvier 1930.

Note sur la dépulpage ou non dépulpage des moignons coronaires pour prothèses fixes

Doit-on ou ne doit-on pas dépulper un moignon devant servir de support à une couronne métallique ou d'ancrage fixe à un travail à pont?

Question très controversée, s'il en fut, et qui, depuis plus de trente années continue à faire l'objet de discussions au sein de nos Sociétés et Congrès scientifiques professionnels.

B.—Partisans de la non dépulpage.

Arguments:

1° Nécessité de conserver l'intégrité anatomo-physiologique de la pulpe;

2° Technique plus rapide;

3° Absence de complications septiques pulpaire post-opératoires.

Le premier argument (*nécessité de conserver l'intégrité anatomo-physiologique de la pulpe*) ne peut avoir de valeur absolue, pas plus au point de vue physiologique, que prophylactique et physio-mécanique.

Au point de vue physiologique, la pulpe — dont le rôle dentinogène est de caractère involutif — n'est pas indispensable à la vitalité physiologique d'une dent: le nombre considérable de piliers dépulpés en est une preuve.

Certains auteurs seraient même enclins à attribuer à l'odontoblaste un rôle calcolytique au cours des troubles métaboliques du calcium d'ordre général, rôle analogue par conséquent à celui de la cellule osseuse (G. Guérard, P. Housset, Fourquet). Par contre, M. Roy s'est élevé, au cours d'une discussion à la Société d'Odontologie, contre cette fonction hypothétique — refusant, avec arguments cliniques à l'appui, à la cellule odontoblaste toute assimilation physio-pathologique à la cellule osseuse. Du reste, les observations que A. Siffre a publiées en leur temps, concernant ses études comparatives entre les dents de sujets normaux et celles de tuberculeux, au point de vue de leur teneur en calcium, semblent donner aux affirmations de M. Roy une valeur toute particulière.

Au point de vue prophylactique, le rôle dentinogène de défense de la pulpe devient inutile du fait que sa protection mécanique et prophylactique est assurée par la métallisation du moignon — cette dernière n'empêchant nullement du reste ce rôle de continuer à s'exercer, bien au contraire.

Enfin, au point de vue physio-mécanique, le rôle de la pulpe est tout à fait accessoire, car si, comme je l'ai dit plus haut, la dépulpage ne compromet en aucune façon la vitalité physiologique du moignon, la valeur spécifique fonctionnelle de ce dernier reste intacte — à la condition toutefois que cette valeur soit basée sur les lois de mécanique rationnelle (Sadrin, Béliard) ou bio-physiologiques (M. Roy, P. Housset, Duchange), qui ont présidé à la conception du travail à pont, ou ne trouve, d'autre part une cause de déficience dans la technique suivie au cours de sa construction.

Cependant, si cet argument ne présente, au point de vue physio-mécanique, aucune valeur dans le sens absolu, il n'en est pas moins défendable dans certains cas d'espèce — par exemple, celui de moignon ayant à supporter de solides inlays-ancrages, à cause de la friabilité du tissu dentinaire (P. Housset) résultant de la suppression du milieu humide constitué par les fibrilles de Tomes. Dans ce cas particulier, la dépulpage peut être une cause de moindre résistance des parois — que l'on compense, du reste, par l'adjonction à l'inlay d'un tenon intraradiculaire. Par

ailleurs, cet inconvénient de la friabilité dentinaire est bien connu de nos pédagogues professionnels en ce qui concerne la technique sur fantômes (Bastien, M. Raton, G. Guilmour, etc.)

Je ne mentionnerai, d'autre part, que pour mémoire le deuxième argument (*technique plus rapide*). Il ne saurait, en effet, y avoir aucun doute sur son peu d'intérêt pratique, car, à l'heure actuelle, il est devenu classique de pratiquer l'obturation définitive immédiatement après la dépulpe.

Reste enfin, le troisième argument (*absence de complications septiques pulpaire post-opératoires*). Ici, je me permettrai de faire remarquer que cet argument ne peut constituer une contre-indication absolue aussi bien en faveur des partisans de la dépulpe que de ceux de la conservation de la pulpe.

Aux premiers, on pourra objecter, en effet, que l'infection péri-apexienne ne saurait être évitée si la dépulpe n'a pas été pratiquée aseptiquement et, surtout, suivie immédiatement de l'obturation définitive de la chambre pulpaire ou des canaux, suivant les cas.

Quant aux seconds, qu'ils veuillent bien se convaincre que la conservation de la pulpe n'empêche nullement son infiltration septique, si la décortication n'a pas été suivie, comme je le faisais remarquer plus haut, de la métallisation du moignon et si, par surcroît, l'adaptation de la bague métallique au collet a laissé à désirer.

En définitive, la controverse sur l'opportunité de la dépulpe ou de la conservation de la pulpe, que j'ai essayé de soutenir scientifiquement et pratiquement, se résume en une question de cas d'espèce, d'asepsie, de technique et, disons-le, de praticien.

II. Décortication avec Conservation de la pulpe

1° Indications de non dépulpe d'un moignon.

Ces indications sont de trois ordres :

1° Anatomo-physiologique ;

2° Pathologique ;

3° Psychique ;

1° Indications d'ordre anatomo-physiologiques

a) *Dent bien calcifiée normalement située sur l'arcade et à pulpe saine non exposée.*

b) *Dent normalement située sur l'arcade et dont la pulpe est en voie soit de calcification physiologique (vieillards) soit de calcification par réaction défensive (carie non pénétrante).*

c) *Dent de hauteur et en occlusion normales.*

Toutes ces indications trouvent leur justification dans les rapports morphologiques de la chambre pulpaire et des contours amélo-dentaires, que j'ai rappelés au début de la controverse sur la systématisation des partisans ou non de la dépulpe.

Bien entendu, les indications de cet ordre ne devront être retenues que pour les cas de couronnes métalliques simples, isolées ou utilisées comme piliers de pont inamovible à travée de peu d'étendue (trois dents intermédiaires au maximum), et ceux d'inlays-ancrages pour pont amovible, dont la travée ne comportera qu'une ou deux dents seulement.

2° Indications d'ordre pathologique.

Parmi celles-ci, je n'en retiendrai que quatre — que tout praticien connaît du reste, Ce sont :

a) *L'Hémophilie*, qui est une affection héréditaire, surtout chez l'homme. On cite des cas de familles hémophiliques.

b) *L'Anémie*, caractérisée par un état de déficience dans la numération globulaire, dont chacun connaît les proportions normales (déficience du nombre des globules rouges avec augmentation des globules blancs).

c) L'Endocardite, citée par J. Tellier, liée très souvent à une crise de rhumatisme articulaire aiguë antérieure.

d) Certains états tropho-dyscrasiques, tels que l'urémie, les hépatites, diabètes, etc. . . .

Sauf pour l'endocardite, qui est une très sérieuse contre-indication à la dépulpa-tion, à cause du choc opératoire qui peut en résulter — pouvant même entraîner la mort chez certains émotifs — toutes les indications d'ordre pathologique que je viens de citer sont loin d'être absolues, si le praticien a soin de n'opérer — en cas de nécessité prothétique d'une dépulpa-tion — qu'avec le maximum d'asepsie et, au besoin, en liaison avec le médecin de la famille.

Elles n'en méritent pas moins d'être prises en considération du fait que ces patients présentent un état hémorragipare dont il faut prévoir les conséquences. Il y aura donc lieu d'éviter la dépulpa-tion, si aucune nécessité prothétique ou tislulaire ne nous y oblige.

3^o Indications d'ordre psychique.

Indications d'ordre secondaire, dont il faut tenir compte cependant. Chez cer-tains patients doués d'une émotivité particulière, le praticien ne devra procéder à l'anesthésie locale qu'avec prudence et user de toute sa force de persuasion. Les cas de syncope par phobie anesthésique ou exodontique sont fréquents.

TECHNIQUE

La technique de la décortication d'un moignon avec conservation de la pulpe saine, comprendra trois temps et devra être exécutée en une seule séance:

Premier temps: *Anesthésie* (locale ou régionale suivant la situation sur l'arcade de la ou des dents à décortiquer au cours de la même séance).

Deuxième temps: *Décortication du moignon*.

Désirant conserver à ce travail sa note pratique, je laisserai volontairement de côté la nature, posologie et technique de l'anesthésie pré-opératoire. Un certain nombre de confrères ayant déjà traité cette question d'une façon magistrale, je prie les lecteurs de vouloir bien s'y reporter (1).

Je ne reviendrai pas d'autre part sur la progression dans la technique de la décortication que j'ai traitée par ailleurs (2).

Troisième temps: *Métallisation du moignon*.

Cette opération consiste à imprégner les parois du moignon d'une couche plus ou moins pénétrante de précipité d'argent, obtenu par la méthode de Percy Howe, utilisée par cet auteur pour la stérilisation des canaux dans les cas de P³.

Elle a pour but de protéger la pulpe contre les chocs thermiques et l'infection secondaire — le précipité d'argent agissant à la fois comme agent protecteur par son imprégnation des fibrilles de Tomes et, secondairement, comme stimulant de la fonc-tion dentinogène pulpaire (3).

Toutefois, je me permettrai d'insister sur un point particulièrement important, c'est que l'opération de la *métallisation d'un moignon à pulpe vivante doit être exécutée la décortication complètement terminée*.

Si, en effet, la décortication était imparfaite, le meulage à nouveau du moignon, nécessité par l'ajustage de la couronne ou du pont avant leur scellement, serait particu-lièrement douloureux, du fait de l'exacerbation de la sensibilité pulpaire, due à

(1) Citons les travaux du Docteur Jeay (*Odontologie*), de A. BARDEN (*Manuel de thérapeutique appliquée*, 1912); de NIVARD (*L'anesthésie régionale en Odonto-stomatologie* (Paris) ; du Médecin commandant H. PÂCAUD. (*Les anesthésies sectionnelles en chirurgie bucco-dentaire*. "Province dentaire, 1933"), etc., etc.

(2) E. FOURQUET. *Technique de la décortication*. (REVUE Odontologique, 1932).

(3) Par contre, il est de toute évidence que si la décortication a été maladroitement mutilante (corne pulpaire mise à nu ou trop faible épaisseur de dentine la protégeant) ou pratiquée à sec, sans intervalles de repos (grillage de la pulpe par échauffement exagéré du moignon) la lésion anatomique de la pulpe, avec troubles fonctionnels et pathologiques consécutifs, sera la règle — et cela, malgré la métallisation du moignon, celle-ci ne pouvant qu'exacerber sa sensibilité et provoquer sa nécrobiose.

l'action thermique de la carapace métallique échauffée au cours du nouveau meulage.

Préparation de Percy Howe:

1^o *Solution ammoniacale de sels d'argent sursaturée.*

Nitrate d'argent	3 grammes
Eau distillée	1 gramme

Faire dissoudre à chaud, ajouter ensuite:

Ammoniaque	0.25
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2^o *Liquide précipitant:*

Eugénol ou Formol pur.

Technique de la Métallisation:

a) Isolement du champ opératoire:

La mise en place de la digue est de rigueur, afin de protéger le collet gingival ainsi que les muqueuses environnantes contre les escharres provoqués par des fusées des éléments médicamenteux métallisants.

b) *Application:*

Débarrasser tout d'abord le moignon de la salive par assèchement à l'alcool ou à l'éther.

Puis, à l'aide de petites boulettes d'ouate, que l'on renouvelle chaque fois, le moignon est tour à tour badigeonné, à plusieurs reprises et sur toute sa surface, tantôt avec la solution ammoniacale de nitrate d'argent — celle-ci en premier lieu (1) — tantôt avec l'eugénol ou le formol, en observant un intervalle d'au-moins 10 secondes entre chaque badigeonnage.

Cette alternance dans les badigeonnages doit être observée et continuée jusqu'à ce que le moignon présente une coloration noire d'ébène.

A ce moment, la métallisation étant terminée, essuyer le moignon avec un morceau d'ouate, puis retirer la digue et, avant que le patient ne ferme la bouche, irriguer fortement le moignon à l'aide d'un jet d'eau tiède, afin de le débarrasser de tout médicament pouvant, par contact, léser chimiquement la langue et les joues.

Critérium. — Le moignon, ainsi métallisé, ne doit, dans les jours qui suivent, donner lieu à aucune manifestation subjective ou objective de pulpite.

S'il en était autrement, c'est que nous serions en présence soit d'une dent hypocalcifiée, dont les tubuli auraient permis au sel d'argent une capillarité à la fois trop rapide et profonde — d'où contre-indication; — soit à une lésion d'une corne pulpaire au cours de la décortication; soit enfin que, par suite d'une exagération de meulage, la pulpe ne se trouverait plus protégée que par une trop mince couche de dentine.

Dans ces trois cas, la carapace de précipité d'argent surajouterait à sa propriété de conductibilité thermique son action chimique, lesquelles exacerberaient, au niveau de cet organe, un état de congestivité réactionnelle aboutissant fatalement à sa nécrobiose.

Si ces manifestations de pulpite ne sont que subaiguës et ne s'observent que le jour même de la métallisation pour cesser le lendemain, le pronostic est bénin et il n'y aura pas lieu de s'en inquiéter.

Si, au contraire, les phénomènes de réaction pulpaire sont aigus et persistent avec exacerbations vespérales, c'est que nous aurions affaire à l'un des trois cas que je viens de citer. Le traitement complémentaire serait alors tout indiqué: anesthésie du bloc alvéolaire, dépulpation et obturation définitive en une seule séance, suivant la technique préconisée au chapitre suivant.

J'en terminerai avec la technique de la métallisation et son critérium en disant que cette méthode se recommande déjà d'une expérience de huit années d'application clinique pédagogique, tant par mes collaborateurs et moi-même que par les étudiants de cinquième année dans notre service de couronnes et travaux à pont de l'Ecole Odontotechnique. C'est dire, Messieurs, qu'elle mérite les honneurs de votre critique.

(1) Ne pas oublier que cette solution ammoniacale étant très volatile il est prudent de ne se servir que de solution préparée à l'avance sous forme d'ampoules de 1 c.c., que l'on doit jeter aussitôt la métallisation obtenue.

Un Dentiste Obtient son Divorce et pour Cause

Les juges de New-York viennent de décider qu'un mari mordu par sa femme a droit au divorce.

Voici les faits: Le Dr. Ralph L. Bowman se plaint que sa femme l'a cruellement mordu plus de soixante fois, il ajoute que lors de son voyage à Miami, sa femme que le climat de Floride n'attirait guère, brisa son radio, ainsi qu'un violon de prix et des appareils dentaires. A son retour à New York le mari éclopé fut accusé par sa femme d'avoir des relations intimes avec des clientes.

Le juge a décidé que le fait d'être l'épouse d'un dentiste n'est pas suffisant pour se servir de ses dents d'une façon aussi incongrue. Il accorde le divorce. Aux dernières nouvelles, le Docteur n'est pas encore enragé.

Congrès

Alors que la tenue de congrès semble interrompue dans toute l'Amérique, l'Association des Dentistes de Langue Française du Québec et d'ailleurs, aura le privilège de voir reprendre ses activités. Ainsi il y aura donc congrès le 31 mai, le 1er et 2 juin.

Ceux qui auraient l'intention d'y assister feraient bien d'en avertir l'organisation le plus tôt possible pour qu'elle puisse s'occuper des réservations nécessaires aux visiteurs de l'extérieur.

Dans notre numéro de mai, nous donnerons plus amples informations et détails.

YOUTH . . .

"Youth is not a time of life—it is a state of mind. It is not a matter of ripe cheeks, red lips, and supple knees; it is a temper of the will, a quality of the imagination, a vigour of the emotions; it is a freshness of the deep springs of life. Youth means a temperamental predominance of courage over timidity, of the appetite for adventure over love of ease.

"This often exists in a man of fifty more than in a boy of twenty. Nobody grows old by merely living a number of years; people grow old only by deserting their ideals. Years wrinkle the skin, but to give up enthusiasm wrinkles the soul. Worry, doubt, self-distrust, fear and despair—these are the long, long years that bow the head and turn the growing spirit back to dust.

"Whether 70 or 16 there is in every being's heart the love of wonder, the sweet amazement at the stars and the starlike things and thoughts, the undaunted challenge of events, the unfailing childlike attitude for what next, and the job and the game of life.

"You are as young as your faith, as old as your doubt; as young as your self-confidence, as old as your fear, as young as your hope, as old as your despair.

"In the central place of your heart there is a wireless station. So long as it receives messages of beauty, hope, cheer, courage, grandeur, and the power from the earth, from men and from the Infinity, so long are you young.

"When the wires are all down and all the central place of your heart is covered with the snows of pessimism and the ice of cynicism, then you are grown old indeed and may God have mercy on your soul."

—Quoted by James Robinson, Chicago, in *Jour. of Wisconsin D. Soc.*



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SURVEY OF DENTAL SERVICE NEED*

by T. R. MARSHALL, D.D.S., Secretary, Dental Public Health Committee,
Ontario Dental Association

MAKING dental service more available to more people presents many difficult problems, if any degree of adequate treatment is contemplated. This survey is one more factual support to the statement that practically everyone is affected by dental disease and this report consists of a discussion of some of the problems in meeting the need of dental care. It is common knowledge that most people neglect regular care of their teeth and have allowed a considerable backlog of accumulated need to occur. As a result of this, before initiating any broadened program of dental service, the cost of any undertaking, together with available trained dental personnel to carry it out, must be given due consideration. Yet again some approach to the problem must be conceived whereby a rapid growth of public desire for extended dental services can be satisfied at least in part. Our governments recognize present day public attitudes and seek to fashion a suitable program in collaboration with the dental profession.

The Ontario Municipal Health Services Board, set up by act of the Ontario Provincial Legislature in 1944, has requested information respecting needed dental services among children in an area designated as the "Porcupine District" in Northern Ontario. The

district is defined as including the town of Timmins, Tisdale Township, Whitney Township, and the unorganized townships of Delora, Matheson, and Mountjoy, particularly those sections served by the Porcupine Health Unit. In the district there are approximately 10,984 children, ages 14 and under. The community under study is a typical mining district embracing patterns of living common to both rural and urban life.

The specific information requested by the Municipal Health Services Board was solicited from the Royal College of Dental Surgeons of Ontario, which body represents dentistry in the province, and is set forward as follows:—

1. What organization could be undertaken:

- (a) To give adequate dental treatment to all children under 14 years of age?
- (b) To expedite the necessary backlog of treatment in all these children up to 9 years of age?

2. What is the cost of these items

(a) and (b) separately?

In undertaking the assignment, the Board of the Royal College of Dental Surgeons, in consultation with the Ontario Dental Association representatives, invited the Ontario Dental Public Health Committee to undertake

* This report is based on a survey of dental need among children ages 5 to 14 inclusive, in the Porcupine District of Northern Ontario, Canada, and presents a discussion of the service problem. It has been prepared for the Municipal Health Services Board of Ontario at their request, by the Dental Public Health Committee of the Ontario Dental Association in collaboration with the Royal College of Dental Surgeons of Ontario.

the project. This committee proceeded by inviting co-operation from the Dental Health Director of the Northern Ontario Dental Society; the primary school inspectors and teachers of the district; the Medical Officer of Health in the community and his staff of Public Health Nurses; and the Porcupine Dental Society which included all dentists in the area. Assistance contributed by each of these groups was generous and very valuable in planning and completing the survey.

One of the first problems encountered was to lay down specific principles to govern the conduct of undertaking. These were set forth as follows:—

1. A cross section clinical examination of a representative group of about 1,500 children in the district be made with an equal representation from each age of 6 to 14 inclusive.
2. The interproximal x-rays (bite-wings) be made of approximately 100 children in the age groups of 6 and 14 to determine the percentage of errors in the clinical examination. This average error could then be applied to other age groups.
3. That the dentists of the "Porcupine Dental Association" who are the dentists in the area concerned be asked to undertake the implementation of the survey under the direction of the Committee's representatives. It was thought that in this way the need would be appraised from the average dentist's point of view.
4. That a suitable dental examination card (See Appendix B) be prepared for use in tabulating details of information desired and that the dentists conducting the survey be thoroughly instructed regarding the details of the examination and the recording of their findings on the prepared card.
5. That a group of 5 year old children, 100 if possible, be secured representing pre school age, and that this group form a part of this study.
6. That the dentists of the "Porcupine Dental Association" be asked to make a contribution to the project by way of time and services but that compensation of \$20 per day would be allowed to partially defray loss of time from their practices.
7. That if possible, children should be examined in the schools so as to disrupt school activities as little as possible, particularly when this was desired by the inspectors. It was understood however, that facilities for clinical examination be satisfactory and that children for x-ray would need to attend the dental office.

SELECTION OF CHILDREN

Great care was exercised to include (1) a representation of all groups of children as far as possible from rural and urban centres in all primary schools including both those who had previous dental service and those without previous care as they occurred in the classroom. (2) A proportionate number of each pattern of living conditions.

- (a) All children in accessible rural schools were examined.
- (b) 50 pupils in each age group from 6 to 14 inclusive, were examined in each French Separate School.
- (c) 10 pupils in each age group in the English Separate Schools which is a proportionate number.
- (d) 40 pupils in each age group in Timmins Public Schools.
- (e) 25% of pupils in each of the urban centres of Schumacher, Porcupine, South Porcupine, Dome and Buffalo Ankerite.

The children were chosen by taking every fourth child in the classroom as far as possible.

THE SURVEY

The survey was conducted commencing January 8, 1945, and concluded

January 12. Nine dentists of the area participated and the clinical examinations, which were carefully performed, required on the average seven minutes per child. The findings were efficiently recorded with the assistance of Public Health Nurses supplied by the Board of Health. The completed cards were brought to Toronto, a copy of which in blank is appended to this report as Appendix B. The chairman of the Survey Committee, then arranged to have each card evaluated and calculated by two dentists. Toronto dentists known to be interested in the survey

project were invited to assist and volunteers were divided into pairs and given the cards of one age group. The purpose and conduct of the survey was explained in detail to each team of evaluators and the need for greatest care in recording details. Thus, all cards were carefully examined, checked and recorded. More than thirty dentists took part in the tabulations, which took more than 140 hours of time. Results of tabulation are shown in Appendix A.

In examining the figures of this chart, certain explanations, observa-

Appendix A.

MASTER SURVEY CHART

Porcupine District Dental Survey

1.	Age Group	5	6	7	8	9	10	11	12	13	14
	No. of children examined	94	81	78	79	71	79	80	75	79	89
2.		78	82	85	78	79	79	79	73	69	58
3.	No. of children free of defects	172	163	163	157	150	158	159	148	148	147
4.	No. of children who have never visited a dentist	10	0	3	3	4	3	0	5	8	5
5.	No. of children with fillings present	112	97	87	68	53	54	46	31	36	30
	No. of primary teeth with fillings	22	22	32	47	47	52	59	73	74	71
	No. of secondary teeth with fillings	64	63	68	88	54	29	39	9	2	0
6.	No. of children visiting a dentist for extraction only	0	10	41	73	105	123	190	270	241	331
7.	No. of children with	40	44	44	42	50	52	54	38	87	46
	Neglected home care	44	49	43	43	44	63	57	67	57	65
	Fair home care	92	96	101	100	97	85	96	74	79	77
	Good home care	36	13	19	6	9	10	6	7	12	5
8.	No. of children with inflamed gums	2	2	5	7	8	15	16	24	26	20
9.	No. of children with hypoplasia of enamel	12	10	19	21	15	26	18	16	26	18
10.	No. of children needing health check from oral evidence	20	8	7	4	2	4	2	6	4	3
11.	No. of children with prematurely missing teeth	46	56	64	73	72	63	47	74	82	87
12.	Total number of teeth missing	150	189	184	193	180	159	74	138	166	202
	No. of children with fractured teeth	4	0	1	3	4	4	7	7	9	6
13.	Total number of teeth fractured	6	0	1	3	5	4	8	12	10	13
	No. of children observed with habits detrimental to development of normal occlusion	10	18	7	3	12	5	0	5	7	0
DENTAL SERVICE NEEDS											
14.	No. of children needing periapical x-rays	14	3	6	1	15	15	12	17	21	25
	Total number of x-ray films	14	3	8	1	15	40	28	14	26	35
15.	No. of one surface fillings in secondary teeth	8	159	273	330	355	273	299	395	311	447
16.	No. of two surface fillings in secondary teeth	4	6	32	41	68	104	140	124	160	254
17.	No. of fillings in anterior secondary teeth	0	0	4	12	74	110	119	172	191	174
18.	No. of one surface fillings in primary teeth	246	276	188	178	98	25	7	0	0	0
19.	No. of two surface fillings in primary teeth	504	534	510	287	144	102	0	0	0	0
20.	No. of pulp cappings	52	26	34	17	41	28	41	62	78	55
21.	No. of pulp canal therapy	0	0	0	0	3	11	7	7	3	15
22.	No. of gold inlay or crown restorations	0	0	1	0	4	3	10	6	5	6
23.	No. of prosthetic restorations of anterior teeth	1	0	0	0	0	2	0	3	6	10
24.	No. of teeth to be extracted	130	217	261	201	176	113	95	43	29	9
	(Primary)	0	0	6	24	22	53	45	54	47	70
25.	No. of prophylaxes	124	119	141	154	139	145	159	138	148	140
26.	No. of children needing space maintenance	72	100	71	61	37	28	0	2	0	0
	No. of maintainers needed	144	138	170	140	93	49	0	3	0	0
27.	No. of children needing orthodontia	42	29	54	57	71	58	59	73	78	67
28.	No. of units of service needed as revealed in interproximal x-ray (average of one defect per child)	172	163	163	157	150	158	159	148	148	147

tions and conclusions follow:—

1. It must be pointed out that in the age 5 group, 86 children were actually examined. In order to make figures of this group easily comparable to those in other age groups, the figures were doubled.
2. In comparing the clinical findings in the age 6 group with x-ray indications, IT WAS FOUND THAT IN 91 CHILDREN X-RAYED, 95 ADDITIONAL INCIPIENT DEFECTS NEEDING CARE WERE DISCOVERED,—AN AVERAGE OF SLIGHTLY MORE THAN ONE PER CHILD. It should be pointed out that if x-rays were made of an age 4 group, even an age 3 group, a much greater increase of defects would probably be found over the clinical recordings. IN AGE 14 GROUP, 93 CHILDREN WERE X-RAYED AND 101 ADDITIONAL INCIPIENT DEFECTS NEEDING CARE WERE DISCOVERED — AN AVERAGE AGAIN OF SLIGHTLY MORE THAN ONE PER CHILD.

IT THEREFORE SEEMS REASONABLE TO CONCLUDE THAT INTERPROXIMAL X-RAYS FOR CHILDREN ON THE AVERAGE DISCLOSE SLIGHTLY MORE THAN ONE ADDITIONAL DEFECT PER CHILD.

3. It seems important to direct attention to the number of children who have prematurely missing teeth. Viz. item No. 11 in Appendix A.

Age 5 group.....	46 children out of 172 or 26.7%
Age 6 group.....	56 children out of 163 or 34.3%
Age 7 group.....	64 children out of 163 or 39.2%
Age 8 group.....	73 children out of 157 or 47. %
Age 9 group.....	72 children out of 150 or 48. %

This observation, coupled with figures setting forth needed extractions in item 24 of Appendix A, presents the results of neglecting early corrective care of incipient defects. Further (1) Dr. Don C. Lyons of Jackson, Michigan, reports from his study of 5,000 children aged 5 to 12 that where he found malocclusion, in 65% of instances it was due to premature loss of teeth with no attempt at space maintenance.

4. The need for special appliances to maintain natural tooth space resulting from premature loss of teeth can be readily observed in item No. 26 of Appendix A.

These figures have been determined on a basis suggested by Dr. S. A. MacGregor of Toronto, viz: Space maintenance is considered advisable generally speaking (a) wherever a primary second molar has been lost prior to ten years, six months, and (b) wherever a primary first molar has been lost before the eruption of BOTH the secondary lateral incisor and first molar in the segment involved. One exception has been made to this classification, namely, if orthodontic treatment is suggested for the child, space maintenance has not been included.

If the cost of these special appliances are calculated at \$12 to \$15, it can be readily seen that it is an item to avoid if possible. IT CAN BE AVOIDED FOR THE MOST PART BY MAINTAINING THE TEETH IN HEALTH BY EARLY AND REGULAR CARE.

Item 27 of Appendix A indicates the need for orthodontic treatment. Assuming the approximate correctness of Dr. Lyons' conclusions, it seems reasonably apparent and as a matter of fact, is common knowledge to dentists, that MUCH ORTHODONTIC TREATMENT NEED COULD BE AVOIDED BY MAINTENANCE OF CHILDREN'S TEETH IN HEALTH BEGINNING IN THE PRE-SCHOOL AGES.

MINIMUM TREATMENT PROJECTED

Considerable discussion could readily evolve concerning the extent of services included in any general plan. For those interested IN THE COMPLETE NEED IN THE COMMUNITY under consideration, I would refer them to the figures in Appendix A and add to this an interproximal x-ray for each child as routine service once each year.

It is the opinion of the committee that the following dental services are essential in a general dental health service for the groups under discussion.

DENTAL INSPECTION CHART

Surname

First Name

School

City or County

Date

Age

Years

Months

Sex

Grade

- Has child ever received dental treatment? None..... Fillings Extractions.....
- How many teeth have fillings present? Deciduous..... Secondary.....
- Estimation of home care—Neglected?..... Fair?..... Good?.....
- Are gingival tissues normal?..... Inflamed?..... If inflamed, what treatment time is needed—½ hour..... 1 hour..... if more than 1 hour estimate treatment time.....
- Is dysplasia of hard tooth structure present? Yes..... no..... If yes (a) how many teeth have hypoplastic defects?..... (b) How many teeth have mottled Enamel?..... (c) how many teeth with enamel dysplasia need restoration?
- Would severity of caries..... or gingivitis..... suggest a general health check? Yes..... No.....

+

- On chart below (a) outline caries areas; (b) mark missing teeth, ; (c) teeth to be extracted, "X"; (d) devitalized tooth, "#"; (e) fractured tooth, "F"; (f) supernumerary, "S".

(Use red in marking chart)

8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8
RIGHT UPPER								LEFT UPPER							
5D 4D 3D 2D 1D								1D 2D 3D 4D 5D							
5D 4D 3D 2D 1D								1D 2D 3D 4D 5D							
RIGHT LOWER								LEFT LOWER							
8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8

PATIENT'S
LEFT

- Indicate the teeth for which periapical X Rays are needed to complete the diagnosis R _____ L

It is assumed that posterior bite wing radiograms are needed in every case to determine the presence of incipient interproximal cavities and depth of cavities. Additional information disclosed by bite wing X-Rays in test cases to be marked in chart in (7) above with green.

- (a) How many fillings are required:

Mark amalgam "a", silicate "s"

	Secondary	Deciduous
Simple	_____	_____
2 surface	_____	_____

- (b) How many extractions are needed.....

- (c) probable pulp cappings? R _____ L Probable Pulp Canal Therapy R _____ L

- (d) probable prosthetic replacements R. _____ L.

- (e) Is prophylaxis needed? Yes..... No.....

- Is space maintenance necessary—yes..... no..... (Space maintenance is considered advisable (a) wherever a deciduous second molar has been lost prior to ten years and six months, (b) wherever a first deciduous molar has been lost before the eruption of both the permanent first molar and the lateral incisor in the segment involved.)

- Is orthodontic treatment needed—yes..... no.....

12. Occlusion

Normal	- - - -	☐
Neutroclusion	- - - -	☐
Distocclusion	- - - -	☐
Mesiocclusion	- - - -	☐
Crossed bite	- - - -	☐
Open bite	- - - -	☐
Closed bite	- - - -	☐
Protruding upper anteriors		☐

Habits

Mouth breathing	- - - -	☐
Lip biting	- - - -	☐
Finger sucking	- - - -	☐
Any others		☐

REMARKS

1. Interproximal x-ray once each year (2 bitewings).
2. Additional available x-ray service to disclose foci of infection when suspected.
3. All necessary plastic fillings in primary and secondary teeth including necessary cavity linings.
4. Regular prophylaxis at the discretion of the dentist, not more than once each year.
5. Pulp canal therapy when indicated.
6. Needed extractions.
7. Minor services e.g. palliative treatments, etc.

The following services are necessary in certain instances but are not included in the regular service plan.

1. Gold fillings and restorations on any tooth or teeth fractured by accident.
2. Special appliances to restore a lost tooth or teeth or to maintain space resulting from premature loss of a tooth or teeth.
3. Orthodontic treatment.

To some extent at least, these latter services might be incurred as a result of accident and carelessness in respect to care of the teeth on the part of the individual.

Fees

The schedule of fees is patterned after the minimum tariff recognized in the Province of Ontario.

Fillings:

Simple alloy	\$2.00
2 surface alloy	3.00
3 surface alloy	4.00
Synthetic porcelain	3.00

Cavity linings and pulp cappings included with fee for fillings.

X-rays:

1 to 3 films	\$2.00
Complete upper or lower	3.50
Complete mouth	6.00
Prophylaxis	2.00
Local anaesthetics	1.00
Extractions per tooth	1.00
Palliative treatment	1.00

ESTIMATED COST OF INITIAL CARE

Estimated costs of dental services, CALCULATED FROM ACTUAL NEEDS FOR EACH AGE GROUP EXAMINED in the "Porcupine District" according to fees indicated for services provided, include interproximal x-rays, needed periapical x-rays, needed fillings, pulp therapy, extractions and prophylaxis. The average fee for extractions is estimated at \$1.50 and for fillings both simple and 2 surface in primary teeth at \$2.00. An additional amount of service estimated at \$2.00 is added to include the one defect per child on the average as likely to be disclosed in the interproximal x-ray.

<i>Age Group</i>	<i>No. of Children</i>	<i>Gross Cost</i>	<i>Capita Cost</i>
5 years	172	2659	15.46
6 years	163	3172	19.46
7 years	163	3385	20.76
8 years	157	3023	19.25
9 years	150	2816	18.72
10 years	158	2690	17.02
11 years	159	2602	16.36
12 years	148	2741	18.52
13 years	148	2698	18.24
14 years	147	3270	22.25

Average per capita — \$18.61

At first glance, it would seem that these figures for initial care are higher than might be expected. In view of this, it must be pointed out:—

1. THAT A MORE COMPREHENSIVE SERVICE HAS BEEN PROJECTED THAN ANY PREVIOUSLY ESTIMATED WITHIN THE KNOWLEDGE OF THE WRITER. e.g. If x-rays and prophylaxis were deleted, not only would two units of service be deleted, but three units because the x-rays, it is believed, would disclose an average of one additional defect per child, and service care for this has been included. These deletions would reduce the cost approximately 5.00 per capita.
2. THAT THE FEE SCHEDULE HAS BEEN DETERMINED ON A BASIC MINIMUM TO ALLOW FOR A QUALITY SERVICE RATHER THAN A MASS PRODUCTION SERVICE, AND TO PROVIDE A FAIR COMPENSATION TO THE DENTIST PROVIDING THE SERVICE.

It should be mentioned that many dentists have not been too anxious to serve children, for two reasons: 1. The child conduct problem . . . the dentist often finds the treatment of children much more difficult than adult patients. 2. The chief reason that dentists have not encouraged more children in their practices is a matter of economics. Fee schedule for children's service often has been likened to the half fare on railroad trains. That is to say, it is unprofitable in itself and is dependent on other services to pay its way.

Dr. Allen Gruebbel,² Secretary of the Council on Dental Health of the American Dental Association, has said: "The greatest incentive to securing the interest of dentists in children's service is making the service attractive from an economic stand-point." This statement coincides with the opinion of our committee that the fee schedule set up should be on a sound and fair economic basis for those who provide the service as well as those who receive it.

In estimating the cost of dental care as above outlined FOR ACCUMULATED NEED among the children up to and including age 14, only those ages of 5 to 14 inclusive are considered. On the basis of 10,984 child population in the area, there are roughly 780 children in each age group. Therefore, the following figures would seem to apply:

780 children age 5 at \$15.46 is	\$12,058.80
780 children age 6 at 19.46 is	15,158.80
780 children age 7 at 20.76 is	16,192.80
780 children age 8 at 19.25 is	15,015.00
780 children age 9 at 18.77 is	14,641.60
780 children age 10 at 17.02 is	13,275.60
780 children age 11 at 16.36 is	12,760.80
780 children age 12 at 18.52 is	14,445.60
780 children age 13 at 18.24 is	14,227.20
780 children age 14 at 22.25 is	17,355.00

THE COST OF THE SERVICE AS PREVIOUSLY OUTLINED TO CARE FOR THE ACCUMULATED NEED of children from 5 years to 9 years inclusive, would be \$73,067 and for the entire group up to and including age 14 would be \$144,731.20.

PERSONNEL TO PROVIDE SERVICE

The problem of providing funds to pay for needed service is by no means

the entire consideration. If each operation were considered a "unit of service" and from considered opinions and experience gathered, it might be projected that, the average dentist could complete 2.5 units of service per hour. This would return a gross income of \$5 for such a period. The number of units of service determined on this basis, that is, one unit per operation, could be estimated as follows, for ages 5, 6, 7, 8 and 9:

5 years	780	6285.35	2514.14
6 years	780	7895.7	3158.28
7 years	780	8412.5	3365.0
8 years	780	7949.04	3179.62
9 years	780	7320.3	2928.12

The above estimate covers the year initiating the plan and takes care of the accumulated need of the ages under consideration. Maintenance service would be less and would probably amount to 3 units of service per child or a little more than one man hour per year. This will be dealt with later.

The total man hours of service needed to take care of the ages 5 to 9 inclusive would be approximately 15,145. There are a total of 10 dentists in the district, so this would mean a contribution of 1,514.5 hours per dentist to completely service this group of children. It is considered that approximately 1,500 hours is the normal output of a dentist with office hours 9 a.m. to 5 p.m. with his time fully occupied.

Before suggesting a plan of approach to this problem from a personnel point of view, the following considerations should be pointed out:—

1. It is understood that services will be made available to all children without discrimination within the groups indicated.
2. It is by no means certain how many children will apply for treatment, even without cost, under a voluntary plan. The number of children availing themselves of this service, both in the first year, or in the maintenance program, will depend upon Dental Health education promoted among those

children and their parents. Further, the eventual cost of the maintenance program will depend on the co-operation of the children and their parents in a regular care program. Dr. Lon W. Morrey,³ Director of Public Relations for the American Dental Association, states that the cost of dental treatment is in inverse ratio to Dental Health education promoted in the community. The director of the welfare department of a large insurance company states "Fundamentally, good health is up to the individual."⁴ The Minister of Health of this province, the Honourable Dr. R. P. Vivian,⁵ has said "You cannot legislate people into health." These observations confirm our past experience and emphasize the value of health education even to the point of making it a compulsory feature, where treatment services are being contemplated. Consequently, it will be assumed THAT A DEFINITE AND ADEQUATE EDUCATIONAL PROGRAM WILL ACCOMPANY THE INSTITUTION OF DENTAL TREATMENT.

3. Pedodontists and Dental Public Health workers generally are agreed that primary teeth are foundation teeth for proper development of the secondary dentition and state that dental care should begin as early as 3 years. The public mind is educated to some extent in the need of caring for the secondary teeth which begin to erupt at 6 years. Further, it is a known fact that parents are in a most co-operative mood concerning their children's welfare and health when they begin to attend school.
4. It is believed that in most centres the service can be best performed in the private office of the dentist, all communities considered, for such reasons as:
 - I. There is a free choice of dentist by the individual.

- II. It is conducive to forming the habit of attending the family dentist for care at regular intervals, which habit might be expected to continue in adult life.

- III. There is a more personal interest in the patient.
5. At the present time it is considered impossible, at least from a personnel point of view, to organize a complete service for all children up to and including age 14 or even 9 years at the outset. It would take the entire time of the dentists in the community, perhaps more. IT IS SUGGESTED THAT A SERVICE BEGIN AT AN OPPORTUNE AGE WITH THE VIEW OF INTERCEPTING AND CONTROLLING THE EFFECTS OF DENTAL DISEASE WITHIN A REASONABLE FINANCIAL OUTLAY AND WITHIN THE ABILITY OF PRESENT PERSONNEL TO PERFORM.

With these thoughts in mind, WOULD IT NOT BE A PRACTICAL PLAN TO INSTITUTE THE SERVICE AT 6 YEARS AND INCLUDE AS MANY 5 YEAR OLDS OR YOUNGER AS WOULD SUBSCRIBE? If all the 5 and 6 year old children presented themselves for treatment, the number of hours required from each dentist per day in the "Porcupine District" would be 2 hours and 36 minutes. But such complete concurrence is improbable, and it is estimated that perhaps 75% of these children would apply for service which would require about 2 hours per dentist per day. These calculations are based on the following premise:—

There are 365 days in one year and of these, the following unproductive time normally occurs:—

- 50 Sundays.
- 14 days annual vacation.
- 25 days (one half day each week).
- 12 days for post graduate studies and convention.
- 6 days statutory holidays.
- 3 days illness.

A total of 110 days in which a dentist is normally absent from his office.

From deduction, we have a total of 255 office days each year. Considering office hours from 9 a.m. to 5 p.m., there would be 7 business hours each day. Actually, experience has shown that about one hour each day or 10 minutes each hour is lost to operative achievement due to education of patient, patient conduct, changing from one patient to another, etc. Consequently, there remains about 6 hours of operative service accomplished each day or about 1,500 per year. Further, this situation exists if, and only if, the operating time is continually occupied. Experience has shown the total productive time to be about 1,250 hours per year instead of 1,500 hours as estimated here.

It seems reasonable that the amount of encroachment upon the time of a dentist in any service program of this nature must have limitations. The estimate of 2 hours each day, with normal loss of time amounting to 20 minutes additional, is about all that could be expected. Therefore, if the 5 and 6 year old groups only were included the first year, the program could be extended to include the 7 year group the following year and thus maintain dental health established the previous year. Further, the plan could progressively include one more age group each successive year until age 14 group was included. It should be understood too that by a policy of consistent education more and more pre-school children would be encouraged to attend for treatment.

FURTHER POST WAR INCREASE OF DENTAL PERSONNEL WOULD MAKE POSSIBLE THE ACCELERATION OF THE PROGRAM.

MAINTENANCE CARE

In instituting this plan of treatment service the approach should be made by examining every child on entering school and twice each year thereafter. This should be a part of the educational program under Public Health. The child, examined by the Dental Health Officer of the district, would be en-

couraged to attend the dentist of his choice for needed treatment.

Up to this point, only accumulated dental needs have been considered. It is only reasonable to expect that regular care, at intervals of twice each year, would be much less costly than the treatment of the first back log of need. Estimates of cost in connection with needed dental service to maintain dental health when it is once established, have been made but there are no entirely reliable figures available. Klein & Palmer⁶ found that 1.4 tooth surfaces were invaded per child per year. The Institute of Dental Health Economics⁷ meeting at Ann Arbor, University of Michigan, one year ago reported that in children ages 6 to 11 years, an average of one dental cavity per child would occur. With this in mind and allowing for annual interproximal x-rays and prophylaxis when needed, the maintenance cost for successive years would average about \$5.00 per capita annually.

The question might now arise "How does this projected dental service program compare with those in effect in some of our towns and cities of Ontario?" Without definite knowledge of each plan of dental care in various municipalities, and the remuneration for dental services allowed, it is impossible to make precise comparisons. However, it is pretty common knowledge that plans in operation ARE LESS INCLUSIVE THAN THE ONE PROPOSED HEREIN. Perhaps if the x-ray service, and the care of the incipient defect disclosed needing treatment, plus the prophylaxis were deleted from the benefits of this plan, a more even comparison could be made. The following table gives a comparison between a complete service as suggested in this survey study and a less comprehensive service.

At first glance, it would seem more economical to choose the "Bare Essential Service." It must be pointed out this service includes x-rays for any individual tooth where diagnosis is in doubt, needed fillings in primary and

Age Group	SUGGESTED PLAN UNDER DISCUSSION Per Capita Cost					BARE ESSENTIAL SERVICE PLAN Per Capita Cost			
	No. of Children	Back Log Service	1st Year	2nd Year	3rd Year	Back Log Service	1st Year	2nd Year	3rd Year
5 years	780	\$15.46	\$6.00	\$5.00	\$5.00	\$10.47	\$5.00	\$4.00	\$3.00
6 years	780	19.46	6.00	5.00	5.00	14.68	5.00	4.00	3.00
7 years	780	20.76	6.00	5.00	5.00	15.34	5.00	4.00	3.00
8 years	780	19.25	6.00	5.00	5.00	13.40	5.00	4.00	3.00
9 years	780	18.77	6.00	5.00	5.00	13.40	5.00	4.00	3.00

secondary teeth, needed therapy of pulp (nerve) involvement cases and needed tooth extractions, but not regular x-ray service to disclose incipient disease or prophylactic treatment as in "Suggested Plan under discussion." If the "Bare Essential Service" plan is accepted over the other plan, there would be a greater loss of teeth and a probable need for special appliances in some cases which would step up the personal cost to the patient over and above the items of service provided for in the plan. This is just another way of saying the second plan would cost the public purse less, but results would not be as effective as the first one.

PAYMENTS TO DENTISTS FOR SERVICES

On completion of the services for any child included in the program, the dentist would render his account to a central office arranged to administer funds provided under the plan according to schedule of fees set up and presented previously in this report.

CONCLUSION

It should be pointed out that no provision for depreciation of dental equipment has been included in these estimates. In the average dental office this would amount to at least \$250 annually. This is not such a serious factor if only part time of the practice is given in a public service program, but it is conceivable that instances would occur where this item would need to be given consideration.

The facts presented in this report relative to the dental needs of the group examined are accurate. The costs for initial services or providing necessary service covering the existent back log are carefully estimated. How-

ever, the institution of the services based upon these figures must be considered experimental as the proposal is more inclusive than has ever been actually attempted elsewhere.

In respect to the figures submitted for maintenance care, it should be understood that these are based upon estimates derived from several studies and not from actual trial except upon a small scale.

The Committee further submits that a plan of administration must be prepared and a Dental Board set up to supervise the treatment service to public and dentist alike. In the interest of all concerned this Dental Board would probably act in an advisory capacity to a salaried administrator and his staff. Payment for services would be made available from public funds.

It is also expected that suitable post-graduate instruction would be available for dentists to ensure competency in carrying out the service according to the newer teachings in respect to dental practice for the child patient.

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ECTOPIC ERUPTION

by STEWART A. MacGREGOR, D.D.S., Toronto, Ontario

THE general practitioner in dentistry should be awakened to the responsibility that is his with respect to eruption of teeth, and the part this process might play in the development of normal and abnormal occlusion. Most mothers become alarmed when they find the lower permanent incisors erupting in irregular alignment and lingual to the deciduous anteriors. This is not ectopic eruption but is in fact a perfectly normal condition. It is indeed very important that this matter be discussed with an anxious parent. I always seize the opportunity to congratulate a mother for her interest in the growth and development of the jaws of her child. Speaking personally, it is a great pleasure to hear from someone among the laity who realizes that dentistry is not merely an act of finding holes in teeth and filling them. After explaining over the telephone that this is the normal process I invite them to the office for clinical examination. Since the parent is in a very receptive mood to be educated, I attempt to explain what is meant by normal and abnormal occlusion and its effect on the child in future years. The mother is advised that, although the permanent incisors are erupting lingually to the deciduous incisors, nothing should be done at that time. The deciduous incisors should be allowed to exfoliate normally except in unusual cases. Higley¹ states that the pressure produced by the permanent teeth in wedging themselves against the deciduous incisors may serve to stimulate or speed up growth in this area. My observations have led me to agree with this statement. I keep the case under observation and if after several months the roots of the deciduous teeth are not resorbed then I advise extraction. However, so far the only case in which it has been

necessary to extract the deciduous teeth has been those of a caeliac child. I have quite a number of these children in my practice and while on the restricted caeliac diet they have absolute immunity to dental caries and their deciduous anterior teeth almost all have to be extracted. The deciduous incisors of the caeliacs I have had to extract have had absolutely no resorption of the roots.

When the lateral incisors of a normal child are erupting however it is often a different story. If lateral or antero-posterior growth of the jaws has not been sufficient to accommodate this tooth then the deciduous cuspid is lost because of early resorption of the root. Lewis² in his study at the Merrill-Palmer School has thrown much light on the subject of ectopic eruption of permanent teeth as a factor in premature loss of deciduous teeth. Fig. 1 illustrates the condition when the permanent cuspid is in the process of eruption. If this condition is unilateral we will find the centre line off to one side and the permanent cuspid will erupt labially. If it occurs on both

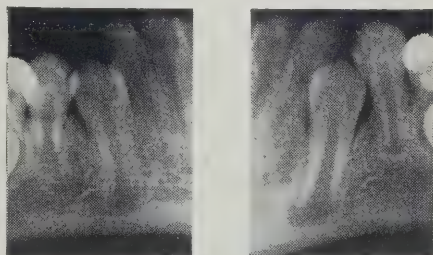


Fig. 1.

sides of the mouth, the centre line is not affected but both cuspids erupt labially. In many instances before the permanent cuspids erupt one is very apt to overlook such a condition for the alignment of the teeth looks

fairly satisfactory until the permanent cuspids and bicuspid begin to erupt. If treatment is not carried out with aesthetic considerations at least in mind, this type of case presents a very poor outlook for the patient. When such a condition is discovered by the general practitioner, if he himself is not well informed on procedures pertaining to orthodontic treatment, he should refer the child to an orthodontist for observation until the proper time for treatment arrives.

Ectopic eruption of the six year molar is also a fairly prevalent condition but unlike that of the lateral incisor the patient usually experiences some discomfort. A pocket is usually formed and if, because of lack of cleanliness it becomes infected, the prognosis will be poor. It is generally thought that this condition is because of the lack of antero-posterior growth of the jaws. Some say it is also associated with lack of vertical growth. The condition is mostly found in the upper arch and is usually bilateral.

It may also be found in the lower arch but such cases are rare. Before determining the type of treatment the following factors must be considered in the diagnosis.

1. Is traumatic occlusion a factor to be considered?
2. Is the six year molar merely lodged under the contact of the deciduous molar?
3. Has the six year molar migrated mesially to a point approximately 1 or 1½mm. in width as in Fig. 4?
4. Has the six year molar moved mesially to the extent that only the distal cusps are erupted? Fig. 7.
5. Does the x-ray reveal a complete resorption of the roots and dentine of the tooth? Fig. 8.

The first case of ectopic eruption that I encountered was in a child, Joyce K., 7½ years old. Joyce was brought to the office with a swelling in one side and complaining of pain in opening the mouth. Fig. 2 shows condition.

When a clinical examination was made, it was found that the disto buc-



Fig. 2.

*upside
down
as what?*

cal cusp of the upper second deciduous molar was in contact with the mesio buccal cusp of the lower six year molar and the disto buccal cusp of the lower six year molar was in contact with the bucco lingual ridge of the upper six year molar. Both these contacts were ground out of the occlusion and the condition cleared up as in Fig. 3, a and b.

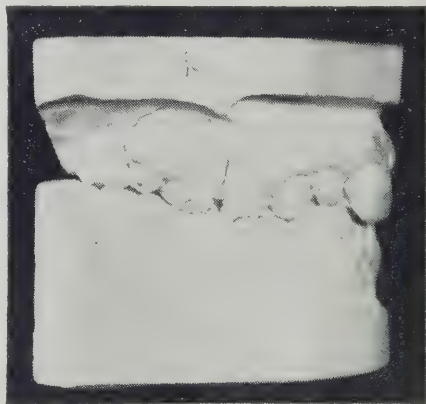


Fig. 3.—(a)

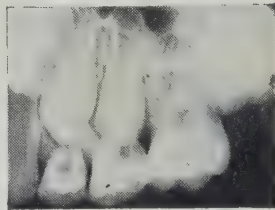


Fig. 3.—(b)

If one finds that the six year molar has not advanced more than in this case and the occlusion is not a factor then a slice off the distal surface of the upper second deciduous molar

would be sufficient to clear up the condition.

Another case history is that of Marilyn A., a bilateral condition. Fig. 4 illustrates the condition.



Fig. 4.

In this case I placed a wide elastic band between the contact and advised the parent to keep the mouth clean by rinsing. Each day a wider separation was inserted and when the mesial surface of the six year molar was in line with the distal surface of the upper second deciduous molar, I inserted a Willett overlay as in Fig. 5.

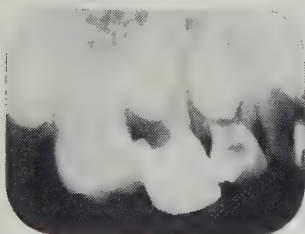


Fig. 5.—(a)

The distal wall of the overlay was extended to a point where it contacted the mesial surface of the six year molar. A copper band fitted in such a way and cemented into place has also been used. It may only have to remain on for a few weeks. The

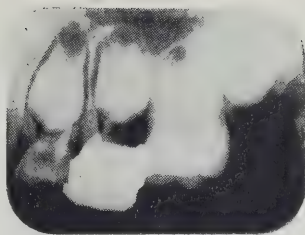


Fig. 5.—(b)

mouth must be kept clean by rinsing during treatment. Fig. 6a, b, c, and d, illustrates the condition at different stages during treatment.

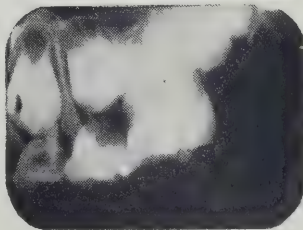
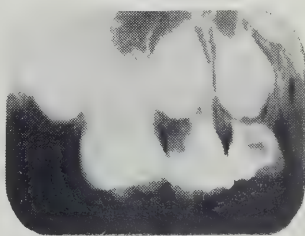


Fig. 6.—(a)
March 8, 1940

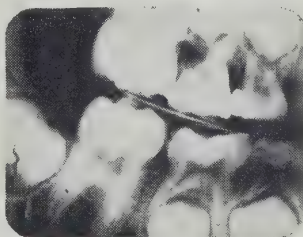


Fig. 6.—(b)

In Fig. 7 a case history of John S. is shown before and after treatment. In this case the condition occurred before the eruption of the six year molar. The tooth was sliced as indicated and

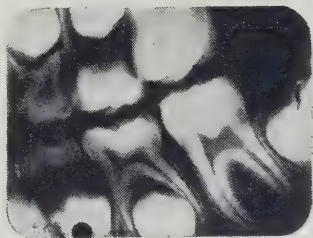


Fig. 6 (b)
June 7, 1941

wherein treatment is impossible. The second deciduous molar had to be extracted and the six year molar moved back and a maintainer constructed until such time as further orthodontia treatment could be carried out if it was found to be necessary.

Fig. 9 shows a case where no treatment was carried out and the child suffered no discomfort. From the look of the X-ray at nine years of age, it seems quite evident that the bicuspid

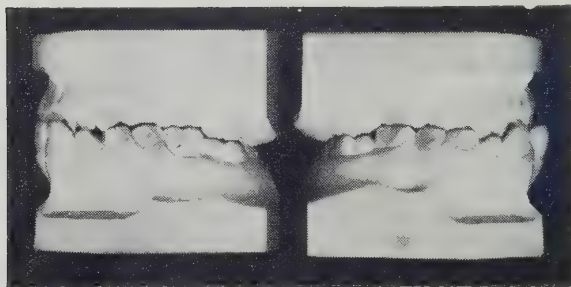


Fig. 6.—(c)

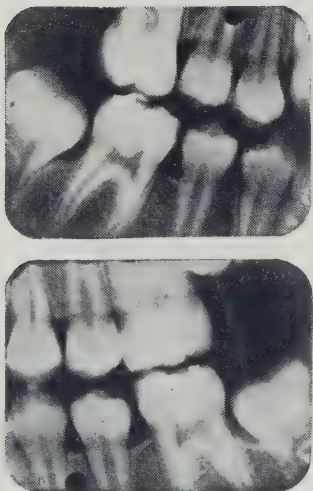


Fig. 6.—(d)
Sept. 2, 1943

the teeth erupted normally. Again the parent must be instructed to keep the mouth clean through brushing and rinsing.

In Fig. 8 another case is illustrated

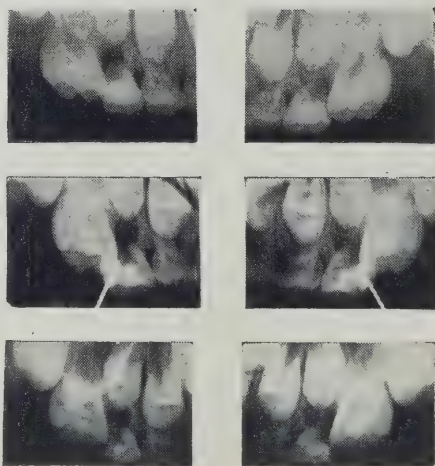


Fig. 7.

(Treatment recommended by Dr. Vernon Fisk, Toronto)

will be impacted.

Fig. 10 illustrates a case of ectopic eruption of the upper centrals. On examining the mouth of this child it



Fig. 8.

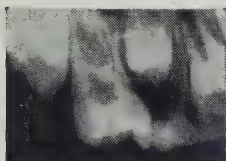


Fig. 9.

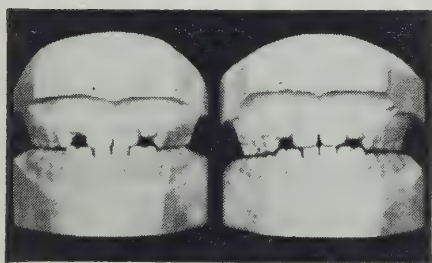


Fig. 10.

was found that the centrals had completely erupted and were lingual to the lower incisors. The lateral and antero-posterior development seemed quite normal. The parent was advised to have the child place a wooden tongue

depressor between the upper and lower incisors. By biting hard and forcing the other end of the depressor towards the chin, the upper teeth were forced labially. The patient was advised to carry out this treatment for one-half hour twice a day. When the upper teeth were brought into a position where the child could get the lowers in behind the upper, the parent was instructed to put a towel under the chin and over the head and tie a tight knot in it. The child was to be given a book to read and instructed to bite hard. The parent by tightening the knot every little while would increase the pressure and shorten the time of treatment. In this particular case it took seven days to bring the teeth into normal position. However, the child was instructed to use the stick for one-half hour a day for a week or so to help promote further growth in the area.

The simplicity of this remedy should not be allowed to distract our minds from the importance of the correction to the child in later years.

In closing, may I plead with the general practitioner that he see the responsibility that is his and that he seize the opportunity to aid humanity by diagnosing early those conditions that if left untreated may some day mean so much in the future of some individual. Yes, indeed, as someone has said, "May the memory of lost children urge us on."

3032A Yonge St.

BELGIAN PROSPERITY

by CAPT. N. HELMAN, Canadian Dental Corps

FOR four years our propaganda machine has been telling us of the sufferings and deprivations of the subjected peoples of Europe. We have been led to believe that the great bulk of the people have been inspired to heroic deeds. At the risk of their lives they were ready to carry succour, help, and food to the oppressed and the needy.

Contrary to their expectations, they found happy normal looking children, some of which were rather smartly clad, well dressed adults, and attractive window displays with a great variety of goods. To the casual observer it appeared that Belgium was living in comparative luxury.

One can easily imagine the reaction

as set up in the soldier's mind. He feels that he has been cheated, that he has been duped. His morale suffered and his attitude to official propaganda and statements has become cynical. The apparent clash between propaganda and fact, merits some explanation. Our unflinching faith in our leaders is as important a factor in the winning of the peace as that of the war.

In search for an explanation of an apparent paradox, these thoughts are expressed. The bulk of goods manufactured as well as raw materials, which was quite considerable in 1939-40, disappeared underground on the eve of the occupation. During the first two years of the occupation the Germans interfered very little with the internal economy. Drawing upon their experience from the past, and Belgium has been a frequent battleground, the natives prepared themselves for any eventuality. Immediately the clouds of war began to make their appearance on the horizon the population each according to one's means began accumulating foods such as canned goods, sugar, flour, various drinks, cigars, all types of clothing and foot-wear. Even in peace-time it was the custom of the country to have one's larder and pantries, and cellar well stocked. It has been quite the usual thing for a middle class citizen to buy cigars in lots of one or two thousand or to store away a hundred bottles of wine in his cellar. In the average home one could find one or two dozens of blankets, much woollen goods, and many suits of clothing. The ingenuity of the people afforded them the means whereby an old coat or dress could be transformed into a seemingly new and stylish outfit.

A story is told about an old couple who lived quite comfortably before the war. During the occupation as their financial reserves have become depleted, they decided to barter their household possessions for food. Their double bed was adorned with a hand-knitted woollen bedspread, which the lady of

the house so laboriously adorned with flowery designs.

With a heavy heart she now began to undo her previous work and to convert the wool into socks. As the first pair of socks were ready, her husband proceeded to a neighbourly farmer, in return for which he received one dozen of eggs, ten kilos of potatoes and two kilos of flour. Next time he brought two pairs of socks and received a double ration of food. When all the wool was used up the good lady was vexed to find that there was an odd sock in the final count. When the old gentleman went again to the farmer he timidly apologized for the odd sock, but mildly suggested that it could be used as a spare sock. Thereupon the farmer smiled and said that it didn't matter since his wife was undoing the knitted socks and making a bedspread out of the wool.

Many a coat or dress which looks new may have been saved for the day of liberation or used very sparingly during the occupation. The high, prohibitive prices on commodities in relation to the average worker's earning capacity made it practically impossible for the masses to buy on any considerable scale and thus exhaust the hidden stocks, which found their way to the consumer via the black market. The black market was operated by the people with a view to retaining the food products and some manufactured goods instead of allowing them to be shipped to Germany. A farmer for instance could lie to the German authorities as to the number of bushels of potatoes or grain that he reaped from his harvest but he could not very safely keep the surplus on his premises. The black market served as an avenue of escape. The same can be said about some manufactured goods.

The nature of the economy in this country, due to the density of the population and the smallness of the country, is rather elastic. There are not large blocks or numbers of a landless proletariat which is solely dependent on a particular trade or employment

for a livelihood. Contrary to the general belief, Belgium is predominantly agricultural, composed of a large number of very small land owners. One can derive most of his staple food supply from his farm but man cannot live on bread alone. So in his spare time he seeks employment in town, factory or colliery, or he has a pub or small store in his house. Such form of an economy permits for easy adaptation to various circumstances without causing undue suffering to the bulk of the people.

In the early years of the war when Germany was sure of victory and was the master of a practically undamaged and a relatively high industrial entity she set out on her task of forming a planned European economy. Her geopolitical system divided the people of Europe into various grades, based on racial, economic and strategical considerations. The system was to last a thousand years. It was to ensure supremacy for the German people in the role of masters and overseers of a planned and stable economy.

In any civilized community the complexity of our existence demands a great variety of occupations, trades, and professions, the humblest of which is in a practical way just as important as the most elevated one. Life would be impossible if all the members of the community would betake themselves to the so-called nobler occupations and refuse to do the more menial tasks. In a free community the competitive system, based on brain and brawn of the individual, provides the solution and regulating device to the above.

In a planned economy however, which aspires to an unprecedented stability, and which comprises a multitude of peoples who are to serve in various and definite capacities towards the maintenance and preservation of the master and lord of the economy, the various tasks from the humblest to the highest have to be allotted in advance and rigidly adhered to. Thus the less advanced peoples of Eastern Europe and

the Balkans predominantly subsisting on an agricultural economy which still is in various degrees of primitiveness were to be and remain at the bottom of the economy. They were to be treated as a lower grade of human beings which have to be fed and sheltered with a view to reaping the maximum in labour production. They were to be kept perpetually in semi-illiteracy.

Belgium by virtue of her strategical importance, high culture, industrial development, and kinship of race was to occupy a more important place in the planned economy. Thus within the limits compatible with the success and stability of the Plan, she was given more apparent freedom, culturally and economically. Realizing, as they did, the intelligence of the Belgian people, whose co-operation they vitally needed at least during the critical period of the initial stages of the plan, the Germans had, by force of necessity, to play a subtle game of take and give.

The intelligent Belgian in his turn, realized the situation and drove the bargain to the utmost. He did this for a few reasons, such as; to carry on his daily life, also because the more he received from the Germans the less was left for the German war machine.

To maintain morale at a high level, which was of vital importance in his resistance to the invader, much of the manufactured goods which nominally were destined for the planned economy found its way to the black market, with and without the connivance of some German elements. Every effort was made also to keep the number of deportees of forced labour to Germany to a minimum.

To appreciate the intelligence, ability, resourcefulness and cunning of the Belgian, one has to look only at his beautiful cities with their monumental cathedrals and public buildings, their neat farms and the royal spacious highways. One's admiration is further enhanced when one realizes the smallness of the country with its nine million inhabitants.

The Forum

PENICILLIN THERAPY IN DENTISTRY

by SURGEON COMMANDER (D) H. PARKER BUCHANAN, L.D.S.Glas., R.N.V.R.

Condensed from Br. D. Jour. March 2, 1945.

PENICILLIN is at present available as powder or tablets, liquid or cream. The dried forms are relatively stable, but most fluid preparations are unstable in heat above 5°C., or in the presence of any acid or alkali. Alcohols and oxidizing agents such as hydrogen peroxide or potassium permanganate must not be used in conjunction with penicillin.

The list of organisms which are susceptible to penicillin includes several commonly found in the mouth, and fortunately it can be used in concentrations much stronger than are lethal to these organisms, without harm to the host. Probably its greatest value in most of the pathological conditions where the dentist is likely to use it, is found in its ability completely to inhibit reproduction of many forms of bacteria, and since it maintains this condition in lessening degree for many hours, leucocytosis and granulation are afforded more than an even chance to deal with inflammation or sepsis.

In most cases treated results have been far beyond expectation and there is every reason to anticipate that once methods of application and of production of this somewhat unstable biological product have been standardized, oral infections and post-operative pain and swelling will be very greatly reduced.

TYPES OF CASES TREATED

Septic Sockets.—Excellent results have invariably followed the insertion of one or perhaps two tablets (each

containing 7,500 units of the sodium salt) into sockets from which abscessed teeth have been removed.

Impacted Wisdoms.—Perhaps the most spectacular results observed by the writer have been in the control of symptoms post-operative to the removal of impacted lower third molars. The typical sequela of pain, swelling and trismus have been in eleven such cases almost completely absent, and this list includes two in which considerable pre-operative trismus (due to Vincent's infection) was present.

The method used was to swab the third molar area with penicillin solution before incising, and to insert two tablets into the socket after extracting the tooth but before suturing. For several days thereafter it was found possible daily to introduce into the socket, via the closing incision, one or two tablets, or a small quantity of powder made into a stiff paste with glycerine. This treatment alone has been adequate to keep infection at bay, has produced no thrombosis, and has achieved a short and painless convalescence.

Gingivitis.—Despite the fact that it may sound like hailing this new substance as the long-sought dental panacea, it is true to say that penicillin may yet prove to be a simple and successful cure for Vincent's and other infections of gingival tissues.

After trying several methods of application the easiest and most effective was found to be as follows:—

Wash the mouth with plain warm water, dry gum tissue with cotton-wool pellet, paint inflamed or infected area with penicillin solution, and then pack fragments of a crushed penicillin tablet into gum pockets and interstices. This system used once daily, has in all cases greatly improved the condition within

forty-eight hours, and has in most produced complete bacteriological and clinical cure within a few days. It must be admitted, however, that it is as yet too early in the story of penicillin therapy safely to guess how permanent such cures may be.

HELPFUL HINTS

Contributed by Kitchener District of the Ontario Dental Nurses and Assistants Association

STAINS: Most of us are familiar with the different fluids for removing stains, but just to refresh the memory here are a few:

Hot water for wax on cloth.

Chloroform for wax on slabs and trays.

Alcohol or developing solution for iodine.

For Silver Nitrate use 10 parts ammonium chloride, 10 parts corrosive sublimate, 101 parts water; or pure muriatic acid (A solution of sodium bicarbonate will neutralize the acid on the spot.)

For oil of cloves, or any essential oils, use alcohol.

For all fixed oils, such as machine or castor, use carbon tetrachloride.

Laundering removes metaphen.

Household ammonia works with copper sulphate.

Ink stains require salts of lemon.

The dripping of a small spray of water on revolving stones (by the nurse) relieves the heat of grinding and much consequent pain.

Much appreciated is the placing of a towel at the back of the patient during hot weather.

In operations involving the use of stones or disks the nurse should hold back the patient's cheek with the mouth mirror. This will protect the tissues from being caught in the revolving stone or disk.

For those who may not already know, impression trays can be cleaned

quickly by spreading a little vaseline on them, flaming them over a bunsen burner, and wiping them clean with paper tissue. Then they may be dropped into the sterilizer, although it is not always necessary to do this. They may now be slipped into rectangular cellophane sheaths. They rightly impress the patient with their absolute cleanliness.

A wire gas stove brush can be used to advantage for cleaning burs before they are sterilized, and also for cleaning denture flasks following their use in the vulcanizer.

To make silk sutures cut black silk thread into lengths four times as long as the suture is to be, double it and twist tightly, thread the twisted strand through the needle eye and tie the ends. Then wrap the thread around a piece of orangewood stick and place it in an empty carpule. Sterilize by boiling before using.

To keep the labels on drug bottles always clean and easy to read use colourless nail polish and paint over the printed label—or use a similar-sized piece of cellophane which can be bought in strips and pasted over the label.

Keep your sterilizer faucet in perfect working order by applying vaseline around the turn-off while the water is hot. This melts the vaseline down around the threads and prevents rust and the accumulation of lime.—O.D.N. & A.A. Bulletin, May, 1944.

Brevity never fatigues; therefore brevity is always a welcome guest. — Gautier.

ANNOUNCEMENTS***Dominion Dental Council Examination***

There will be a Dominion Dental Council examination held in Halifax July 30 to

There will be a Dominion Dental Council examination held in Edmonton, from June 15, Class "A" not later than July 1.

There will be a Dominion Dental Council examination held in Edmonton, from September 17 to 22. Class D fees should be in the Secretary's office not later than August 1. Class "A" fees not later than August 15.

A. J. Brett, Sec. Regina, Saskatchewan.

Ontario Dental Association

The 78th Annual Convention of this Association will be held at the Royal York Hotel, Toronto, Ontario, May 28, 29, 30. Dentists from the United States and from all parts of Canada will be welcome.

Edmund A. Grant, Secretary

Western Canada Dental Society

The Biennial Meeting and Refresher Course of this Society will be held in Winnipeg at the Fort Garry Hotel June 18 to 20. An excellent program is being arranged.

Kenneth M. Johnson, President,

C. H. Moore, Secretary.

British Columbia Dental Association

The 29th Annual Meeting of this Association will be held at the Qualicum Beach Hotel, Qualicum, B. C. on June 1 and 2.

Canadian Dental Association

The Board of Delegates of the Canadian Dental Association will meet in Winnipeg at the Fort Garry Hotel June 13 at one o'clock. The General Meeting of the Association will be held on Monday, June 18 at 4 P.M. The C.D.A. Committee on Dental Education will meet at the Fort Garry Hotel for two days commencing Monday June 11 at 11.00 A.M. Hotel reservations should be made now.

R. A. Rooney, President,

Don W. Gullett, Secretary

Nova Scotia Dental Association

The 55th Annual Convention of this Association will be held at the Cornwallis Inn, Kentville, Nova Scotia, on August 2, 3 and 4.

Allan A. Dunlop, Secretary

New Brunswick Dental Society

The Annual Convention of this Association will be held in the Admiral Beatty Hotel Saint John, September 17, and 18.

Eastern Ontario Dental Association

The Annual Convention of this Association will be held in Ottawa September 23, 25.

L. R. Braden, Secretary,

Montreal Dental Club

The 21st Annual Fall Clinic under the auspices of the Montreal Dental Club will be held on October 24, 25, and 26, at the Mount Royal Hotel, Montreal, Canada. For further information apply to

M. L. Donigan, D.D.S.,
Director, Fall Clinic,
Drummond Medical Bldg.,
Montreal, Quebec.

Western Canada Dental Society

The Biennial Meeting of this Society will be held in Winnipeg June 18, 20 when the dentists of Alberta, Saskatchewan and Manitoba will gather to consider the many problems facing the profession in these days.

Dr. R. A. Rooney, President of the Canadian Dental Association and Dr. Kenneth M. Johnson, President of the Western Canada Dental Society will address the gathering.

The luncheon meetings will be addressed by The Honorable Stuart S. Garson, Premier of Manitoba and Dr. Harvey Reid, President-Elect of the C.D.A.

The guest speakers will include, Dr. John Kemper, of University of Michigan on Oral Surgery; Dr. Edward L. Ball of Cincinnati on Peridontia; Dr. James Coupland, of Ottawa on Radiodontia; and Dr. Frank Martin of Toronto on Immediate Dentures.

There will be outstanding group clinics, also a moving picture on "Nutrition" as well as a banquet, golf and exhibits.

A large attendance is assured.

MAKING APPOINTMENTS

by JAMES ROBINSON, Chicago

Excerpts from Jour. of Wisconsin State D. Soc.

I SHOULD like to make a few recommendations designed to ease the pressure of multiple appointments. There are certain rules to follow which offer definite help.

First, the entire responsibility for making appointments should lie with one person—preferably your Dental Assistant or Secretary.

Second, make your appointments at the business desk so that the operating room may be made ready for the next patient.

Third, never book a solid appointment schedule for any single day. Adopt an open office period, preferably in the early afternoon, for the purpose of taking care of those patients who require only relatively small services such as treatments, adjustments, polishing of various appliances or restorations and seeing those prospective patients who want you to simply "Look at my mouth." The minimum time for this period should be one hour.

Fourth, appoint your patients for

longer sittings. Modern pain-control methods now make it possible to keep patients for longer periods in the chair in perfect comfort. From an economic and productive standpoint, you will certainly do more dentistry for ten patients in a single day than for twenty.

Fifth, give your Dental Assistant the advantage of more responsibility. Train her to handle all routines and allow you to be free for work at the chair. Teach every patient in your practice to respect the help you have in your office by insisting that telephone calls, reception of patients, the appointments for patients and the collection of fees are entirely in her hands.

Sixth, add a Dental Hygienist to your staff and you will be relieved of a multitude of dental services which are within the scope of this service to provide. Wisconsin has a tremendous advantage in having this type of service available. The Dental Hygienist has truly done much for the success of private dental practice.

Visitor: "You don't mean to tell me that you have lived in this out-of-the-way place for over thirty years? I really can't see what you can find to keep you busy."

Inhabitant: "Neither can I—that's why I like it."—Medley.

LIFE EARNINGS AND DENTISTRY

by WALTER C. McBRIDE

Excerpts from Editorial in Jour. of Mich. State Dental Soc.

BECAUSE the earning power of a selected vocation is a pertinent consideration in guidance of a high school graduate, the editor takes the liberty, in dentistry's behalf, to include herewith excerpts from a book entitled "Life Earnings", by Harold F. Clark, Ph.D., Professor in charge of Educational Economics at Columbia University.

The book, published in 1937, is a survey of the life earnings of all the professions, from architecture, through dentistry, law, medicine, nursing, teaching, as well as those of nonprofessional work, such as clerical occupations, skilled and unskilled workers, and in farming. The survey began in 1920 and terminated in 1936, thus giving figures for a complete business cycle, for nine years of prosperity (1920-1929) and seven years of a modified depression (1929-1936).

Regardless of the derogatory expostulations by those temporarily sour on dentistry, it's not such a bad vocation. As you read from the following tables you'll find dentistry in fourth place among the professions, from an income viewpoint. It was stated in the good old days, in 1929, that 82% of the populace had earning powers of less than \$1,800 per year and that only 4% had incomes of \$5,000. Today, even on a comparative basis, with the new war incomes considered, only two people in a hundred have incomes comparable to that of dentists.

If for no other reason, the writer has a deep sense of gratitude for the style of living dentistry has provided, for the single fact that, choose where you may this country over, only one other individual in any selected one hundred can live as fully and affluently as he.

INCOMES IN SELECTED OCCUPATIONS IN THE UNITED STATES, 1920-1936.

Occupation	Average earnings in dollars per year
Medicine	4,850
Law	4,730
Engineering	4,410
Dentistry	4,170
Architecture	3,820
College teaching	3,050
Journalism	2,120
Library work	2,020
Ministry	1,980
Social work	1,650
Skilled trades	1,430
Public school teaching	1,350
Nursing	1,310
Unskilled labour	795
Farming	580
Farm labour	485

AVERAGE INCOMES PER YEAR IN DENTISTRY FOR LAST HALF OF THE ABOVE-MENTIONED BUSINESS CYCLE

1929	\$4,900
1930	4,500
1931	3,700
1932	2,700
1933	2,550
1934	2,750
1935	3,400
1936	4,100

AVERAGE INCOMES PER YEARS OF EXPERIENCE IN DENTISTRY.

Years of experience	
0	\$2,500
5	3,690
10	5,140
15	6,255
20	6,670
25	6,520
30	6,390
35	5,850
40	4,950
45	3,950

LENGTH OF WORKING LIFE IN DENTISTRY, 45 YEARS, AGES 24 TO 69.



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Editorials

REFUGEE DENTISTS

At the request of the Premier and Minister of Health of Saskatchewan, the Council of the College of Dental Surgeons of that province has agreed to certain changes in the Act respecting the Dental Profession. Before the Act was changed, graduates of Universities and Colleges in Canada, United States of America, Great Britain and Ireland, recognized and approved by the University of Saskatchewan were accepted for examination. The new clause extends the number who may apply for examination to include New Zealand, Australia and Continental Europe, granting that these applicants have the proper qualifications.

The President of the University assures the Council that there will be no let down in the standard required for applicants, but to include graduates of Universities in Continental Europe at the present time will raise some very complex problems for the authorities in Saskatchewan, problems which will be almost impossible to solve if any real effort is made to do justice to these applicants. This action also raises the question as to what action other provinces should take and it is time that very serious thought was being given to this matter.

M. H. G.

"I have always been, am, and propose to remain a mere scholar. All that I have ever proposed to myself is to say, this and this I have learned; thus and thus have I learned it; go thou and learn better; but do not thrust on my shoulders the responsibility for your laziness if you elect to take on my authority, conclusions, the value of which you ought to have tested for yourself." — T. H. Huxley.

C. D. A. FUTURE

The Royal College of Surgeons of England have plans for a new building to cost £250,000. When one recalls its famous library and museum which caters to all the branches as well as to the main institution, one is impressed with the necessity of Canadian dentists doing something to build up a headquarters which will cater to the dentists of every province.

This means a building, full-time officers, a library, a museum, a film exchange, and many other accessories and amenities. The Representative Board of the British Dental Association has under consideration the collection of films to be loaned to various groups when desired. The American Dental Association already has a splendid collection of films and has just completed one entitled "The A. D. A.", at a cost of \$25,000.

Canadian dentists do not need to lag behind the dentists of other nations in these forward steps so necessary to professional progress.

M. H. G.

DENTAL CORPS NEWS

SUPPLEMENTARY LIST OF CANADIAN DENTAL CORPS OFFICERS, MARCH 31, 1945

RETIREMENTS

Rank, Name and Date	Civilian Address	Rank, Name and Date	Civilian Address
Capt. F. F. French, 12-2-45.....	Ottawa, Ont.	Lt.-Col. L. A. Stirling, 19-2-45.....	Toronto, Ont.
Major W. G. Joynt, 12-2-45.....	Ottawa, Ont.	Capt. H. Towe, 6-3-45.....	Winnipeg, Man.
Capt. H. R. Loucks, 12-2-45.....	Gananoque, Ont.	Lieut. J. Jackson, 29-12-44.....	Edmonton, Alta.
Capt. R. W. Frank, 2-3-45.....	Peterborough, Ont.	Major G. E. H. Montgomery, 11-1-45.	Vancouver, B.C.

The King's Orders

The King has been graciously pleased to give orders for the following appointments to the most Excellent Order of the British Empire, for gallant and distinguished services in the field.

To be additional officers of the Military Division of the said most Excellent Order —

Col. John Frederick Edgcombe, E.D.,
Born in Fredericton, N.B.
Enlisted Nov. 1, 1939.
At present — A.D.D.S. 21 Army Group.

Lt.-Col. Kenneth Baird,
Born in Ottawa.
Enlisted Nov. 22, 1939.
At present — O.C. No. 9 Coy., C.D.C.

Lt.-Col. Roy Franklin Denholm,
Born in Blyth, Ontario.

Enlisted Oct. 24, 1939.

At present — O.C. No. 5 Coy., C.D.C.

Major Alexander Thorne Roger, awarded the M.B.E.

C-41751 Sergeant Donald Austin Butler,
awarded the B.E.M.

Awarded the Canadian Efficiency Decoration
Major (A/Lt.-Col.) J. P. Whyte.

Awarded the Canadian Efficiency Medal
C-11303 A/WO CL II (A/C.S.M.) C. R.
Rochon
C-41830 Sgt. J. C. M. Proulx.

Mentioned in Despatches

Lt.-Col. Ernest Fraser Allen,
Lt.-Col. Willis Gordon Dawson,
Major Lea Ferguson Allanoch,
Captain Russell Mills Sparling,
B-30526 Staff Sergeant Sydney Ernest Knight.

Doctors are always working to preserve our health and cooks to destroy it, but the latter are more often successful. — Diderot.

CANADIAN DENTAL ASSOCIATION NEWS

(From the office of the Secretary)

BALANCE SHEET

December 31st, 1944

ASSETS		LIABILITIES	
Current Assets:		Surplus	\$16,867.95
Cash on hand and in bank:			
General Account	\$15,640.31		
Committee on Procurement			
Assignment and Rehabilitation	147.95		
Dental Research Committee	446.18		
Advance on Travelling Expenses	27.80		
	<u>\$16,262.24</u>		
Fixed Assets:			
Office Furniture and Fixtures	\$ 757.15		
Less Reserve for Depreciation	151.44	605.71	
		<u>\$16,867.95</u>	<u>\$16,867.95</u>

REVENUE AND EXPENDITURE ACCOUNT

Year ended December 31st, 1944

REVENUE		EXPENDITURE	
Grants from Provincial Boards:		Grant to The Journal	\$ 4,500.00
British Columbia	\$1,500.00	Secretary's Honorarium	3,000.00
Alberta	968.00	Clerical Assistance	1,287.82
Saskatchewan	840.00	Unemployment Insurance	30.21
Manitoba	1,008.00	Committee Expenses	366.96
Ontario	7,500.00	Officers' Expenses	1,252.78
Quebec	3,416.00	Pamphlets and Reports	1,138.77
New Brunswick	404.00	Stationery and Office Expense	395.21
Nova Scotia	700.00	Telephone and Telegraph	108.48
Pr. Edward Island	108.00	Postage	212.06
	<u>\$16,444.00</u>	Depreciation, Office Furniture and Fixtures	75.72
Grant, Dominion Dental Council	1,000.00		<u>\$12,368.01</u>
Transfer from The Journal Committee	4,844.14		
Sale of Pamphlets	330.15	Net Surplus for year	<u>\$10,260.28</u>
Donations	10.00		
	<u>\$22,628.29</u>		<u>\$22,628.29</u>

SURPLUS ACCOUNT

Year ended December 31st, 1944

Surplus, December 31st, 1943	\$ 6,607.67
Net Surplus for year, brought down	10,260.28
Surplus, December 31st, 1944	<u><u>\$16,867.95</u></u>

AUDITORS' CERTIFICATE

We have audited the accounts of the Canadian Dental Association for the year ended December 31st, 1944, and report that, in our opinion, the above Balance Sheet is properly drawn up so as to exhibit a true and correct view of the financial position of the Association as at December 31st, 1944, according to the best of our information and the explanations given us, and as shown by the books.

THORNE, MULHOLLAND, HOWSON & MCPHERSON
Chartered Accountants

DENTAL STUDENTS' REGISTER

The following tables set forth tabulated details relating to the dental schools of Canada. The statistical data are based upon re-

plies to questionnaires sent to the respective schools:

TABLE 1.

Total Enrolment in the Dental Schools of Canada as of February 15, 1945

School	Undergraduates							Other Students						All Students				
	Pre-dental	Freshmen	Sophomores	Juniors	Seniors	No. of Men	No. of Women	Total	Graduates	Post Graduates	Dental Hygienists	Dental Nurses	No. of Men	No. of Women	Total	Total Men	Total Women	Total
Dalhousie University	...	10	10	...	8	27	1	28	...	...	...	...	...	...	7	27	1	28
McGill University	...	18	17	...	16	50	1	51	...	...	...	...	...	...	...	50	1	51
University of Montreal	...	48	36	49	29	161	1	162	...	...	...	...	...	...	...	161	1	162
University of Toronto	61	48	...	56	58	215	8	223	...	52	...	25	52	25	77	267	33	300
University of Alberta	...	12	...	15	7	32	2	34	...	...	...	...	...	...	...	32	2	34
	61	136	63	120	118	485	13	498	...	52	...	25	52	25	77	537	38	575

Notes: Postgraduate refers to the graduate who takes a short course or a course for certification in specialization. Graduate refers to the graduate taking an extended course under the direction of the graduate school of the university and proceeding to a degree. The course at the University of Toronto is of five years' duration, the first year is here designated as pre-dental.

TABLE 2.

Distribution of Undergraduate Students by Provinces & Foreign Countries in the Dental Schools of Canada as of February 15, 1945

School	Pr. Ed. Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	Br. Columbia	United States	Newfoundland	Br. West Indies	Panama	Refugees	Total
Dalhousie University.....	2	17	4	...	...	...	...	...	...	4	1	...	...	...	28
McGill University.....	...	2	5	20	3	...	...	...	1	11	...	7	...	...	51
University of Montreal.....	1	3	3	151	...	1	...	...	...	...	...	...	1	...	162
University of Toronto.....	...	...	...	...	163	19	22	5	12	1	...	1	...	...	223
University of Alberta.....	...	...	...	...	...	1	17	12	4	...	...	...	...	...	34
Totals.....	3	22	12	171	168	21	39	17	17	16	1	8	1	2	498

Presidents and Meetings of Canadian Dental Association

Presidents and Place of Election

*F. A. Stephenson, Montreal, Que., Montreal, Sept. 1902.

Eudore Dubeau, Montreal, Que., Toronto, 1904.

*T. W. McInnis (died during term of office) Montreal, Sept. 1906.

*J. M. Magee, Saint John, N.B. (finished term).

*A. E. Webster, Toronto, Ont., Ottawa, Aug. 1908.

*W. D. Cowan, Regina, Sask., Toronto, May 1910.

G. F. Bush, Winnipeg, Man., Hamilton, June 1912.

*F. W. Barbour, Fredericton, N.B., Winnipeg, May 1914.

Joseph Nolin, Montreal, Que., Montreal, Sept. 1916.

*Frank Woodbury, Halifax, N.S., Chicago, Ill., Aug. 1918.

H. F. Whittaker, Edmonton, Alta., Ottawa, Aug. 1920.

S. W. Bradley, Ottawa, Ont., Toronto, May 1922.

*G. K. Thompson, Halifax, N.S., Vancouver, Aug. 1924.

John Clay, Calgary, Alta., Halifax, Aug. 1926.

John Clay (re-elected), Toronto, May 1927.

F. J. Conboy, Toronto, Ont., Toronto, June 1928.

M. H. Garvin, Winnipeg, Man., Regina, June 1929.

A. W. Faulkner, Halifax, N.S., Montreal, Oct. 1930.

Phillippe Hamel, Quebec, P.Q., Toronto, May 1932.

G. L. Cameron, Swift Current, Sask., Toronto, May 1934.

R. L. Pallen, Vancouver, B.C., Montreal, Oct. 1936.

S. A. Moore, London, Ont., Vancouver, June 1938.

W. W. Woodbury, Halifax, N.S., Toronto, May 1940.

A. I. Walsh, Montreal, Que., Toronto, May 1942.

R. A. Rooney, Edmonton, Alta., Montreal, Oct. 1943.

*Deceased

FEE SCHEDULE—DEPARTMENT OF VETERANS' AFFAIRS

As a result of representations made by the Canadian Dental Association a revised fee schedule for dental services has been adopted, as of March 15, 1945, by the Department of Veterans' Affairs. Official communication to this effect has now been received by the Association.

The Executive has given consideration to this matter over a considerable period and desires to express appreciation to the officials of the department for the attention which has been given to the C.D.A. presentations.

The C.D.A. executive committee met in Ottawa in July, 1944, in order to discuss with representatives of the government the revision of this schedule. As a result of the meeting the following brief was submitted:

"The Canadian Dental Association desires to make the following submission respecting the dental fee schedule of the Department of Pensions and National Health.

The reasons for an upward revision of the present schedule may be stated as follows:

(1) The Association is most anxious to co-operate with the Government in order to have the best dental health services possible rendered to all those eligible. The fee schedule in force has been such that the members of the profession most capable of rendering a high type of service have avoided the work for economic reasons. We are of the opinion that full co-operation of the profession can be obtained through the efforts of organized dentistry provided adequate remuneration is made available for the services.

(2) The cost of living has advanced approximately 20%.

(3) The larger proportion of dental supplies are imported. The prices of such supplies have increased from 16 to 20%.

(4) The salaries of office personnel have increased gradually through the addition of taxes, the changing of employer and the natural increases during the period since the beginning of hostilities.

(5) The cost of laboratory technical services has increased in two ways:

(a) Owing to the development of new technique, increased costs of operation and supplies, the dental laboratory has been forced to increase charges to the dentist.

(b) Owing to the great pressure for dental services now exerted by the public, the dentist is unable to perform technical services in the dental office as formerly and is forced to send all mechanical work out of the office. Obviously this procedure has greatly increased the cost of the services rendered in the average dental office. In our opinion this adjustment is of a permanent nature in order to meet the increased demand for dental services from the public.

(6) Whereas, until recently, comparatively few dentists were necessary to perform the services required by those eligible, the number is now increasing rapidly which demands the co-operation of the larger part of the available dental personnel.

(7) It is anticipated that the weight of these services will fall upon the present members of the Canadian Dental Corps after demobilization and consequently will serve as a part of rehabilitation in civilian practice for such personnel. In fairness to these men the service

should be placed upon a sound economic basis.

This Association requested each Provincial Dental Board to study this matter and submit a schedule under which the members of the profession would be willing to give full co-operation in rendering the required services. It should be emphasized that the items were considered on a minimum basis in which payment would be guaranteed.

The Executive Committee met in Ottawa on July 16 and after carefully considering all provincial submissions passed the following resolution:

"Resolved that owing to the many complaints to all provincial dental governing bodies and directly to the Canadian Dental Association by dentists from all parts of Canada that the schedule of dental fees of the Department of Pensions and National Health is totally inadequate to permit them to render proper dental services, the Executive Committee of the Canadian Dental Association does recommend to the said Department the immediate adoption of a complete new fee schedule in order that the men and women now eligible, may be able to receive proper and necessary dental care".

As a result of careful deliberation, the Executive Committee of the Canadian Dental Association submits herewith a co-ordinated revised schedule which it is believed will be acceptable in all parts of Canada and respectfully recommends the adoption of the same by the Department of Pensions and National Health.

The Committee would like to emphasize that this schedule was drafted not only with the knowledge of the enormous pressure of civilian practice at present in mind but also after careful consideration of the conditions which will regulate dental operations after peace time conditions when the larger proportions of practitioners now in military service will be re-establishing themselves in civilian life and

by whom the greater part of these services will be rendered".

As stated in the brief, a schedule was submitted which had been prepared from the submissions made to the C.D.A. from the nine provincial dental boards. A revised schedule was then issued by the department which met most of the operative part of the schedule but the prosthetic section was not satisfactory. Further representations were made by the Association with the result that the appended schedule has been adopted. This schedule is, in the main, identical with the one presented last August by the C.D.A.

The officials of the Department of Veterans' Affairs have repeatedly stated that it is their desire to pay a fair professional fee and have been most attentive in considering the requests of the Association in this regard. In return the Executive has promised to do all possible toward the full co-operation of the dental profession with the department. Further the department has offered to give special consideration to cases where the dentist does not agree with the examining officer's opinion. Full consideration has been given to all the points relating to these services for personnel discharged from the military forces and while there are features which may be objectionable to dental practitioners, it is to be remembered that the department must have specific regulations in order to control the service. In addition, the dental profession has a responsibility to all discharged personnel as well as to those members of the profession who will be, we trust, in the near future rehabilitating themselves in civilian practice.

In view of the action taken by the Department of Veterans' Affairs, your co-operation is earnestly requested toward a satisfactory dental service for discharged personnel.

Don W. Gullett
SECRETARY

Schedule of Dental Fees

Dental treatment authorized by the Chief, Division of Dental Services, Department of Veterans' Affairs to Dental Representatives and supplied by them will be paid for in accordance with the following schedule of fees.

Fees for dental operations other than those listed herein and fees in excess of those allowed for similar operations must be approved by the Chief, Division of Dental Services.

Authorized diagnosis and report	2.00	Pontics (including soldering to attachment)	
Treatments		(i) Gold	7.00
(1) Prophylaxis (includes scaling)	2.00	(ii) Gold and porcelain	8.00
(2) Periodontal (maximum of four) each	2.00	Repairs	
(3) Vincent's (maximum of five) each ...	2.00	(i) Replacing porcelain facings (Steele's)	3.00
(4) Emergency (palliative)	1.00	(ii) Recementing inlays, crowns, abutments each	1.00
(5) Pulp cap	1.00	(2) Removable partial dentures (attachments as below)	
Radiograms and diagnosis		(i) Vulcanite	25.00
(1) Single intra-oral film	1.00	(ii) Acrylic resin	30.00
(2) Full mouth	7.00	Clasp, gold, wrought, with rest	4.00
Surgery		" " cast " "	5.00
(1) Local anaesthesia	1.00	Bar, gold, wrought, assembled	10.00
(2) General anaesthesia	5.00	Bar, " cast, "	14.00
(3) Extraction (each tooth)	1.00	Extension (to replace extracted teeth) first tooth	
(4) Minor oral surgery, including impactions and fractures		(i) Vulcanite	4.00
Detailed report and radiograms are required		(ii) Acrylic resin	5.00
(5) Extirpation of pulp, treatment and filling of root canal	6.00	(iii) For each additional tooth add	1.00
Single tooth restorations		(3) Complete	
(1) Amalgam (1 surface)	2.00	(i) Vulcanite	30.00
(2) " (2 surfaces)	3.00	(ii) Acrylic resin	40.00
(3) " (3 or more surfaces)	4.00	Complete (using teeth of present denture)	
(4) Silicate	3.00	(i) Vulcanite	25.00
(5) Inlay, gold (1 surface)	6.00	(ii) Acrylic resin	35.00
(6) Inlay, gold (2 surface)	9.00	(4) Partial (using teeth and attachments of present denture)	
(7) Inlay, gold (3 or more surfaces)	12.00	(i) Vulcanite	20.00
(8) Crown, gold, cast occlusal	12.00	(ii) Acrylic resin	25.00
(9) " " swaged anterior and bicuspid	10.00	Repairs to dentures	
(10) Crown, gold, swaged molar	12.00	(1) Reline, vulcanite (complete or partial)	10.00
(11) " " repair, including recementing	5.00	(2) Reline, acrylic resin (complete or partial)	15.00
(12) Crown porcelain jacket	30.00	(3) Repair, vulcanite (complete or partial, base only)	3.00
Dentures		(4) Repair, acrylic resin (complete or partial, base only)	4.00
(1) Fixed partial dentures (bridges) (attachments as per Page 1)		(i) For each tooth replaced add	1.00

NEWS FROM THE PROVINCES

BRITISH COLUMBIA:

University of Toronto Alumni Association B.C. Branch

Nearly four hundred alumni of Canadian Universities gathered at a dinner in the Hotel Vancouver, on April 4, to honour Dr. Norman

A. MacKenzie, the new President of the University of British Columbia. The meeting was sponsored by the B. C. Branch of the University of Toronto Alumni Association whose president, H. H. Wallace presided.

Speakers representative of the Alumni Association throughout Canada spoke in very

complimentary terms of Dr. MacKenzie's fine qualities. A graduate of Dalhousie, he had been president of two Canadian Universities as well as holding a professorship at the University of Toronto, had been legal adviser to the International Labour Office, Geneva, and had done fine work at the Institute of Pacific Relations.

Dr. MacKenzie was very enthusiastic for the future of the University of B. C. Though only having faculties of Arts, Science and Agriculture, it was third in enrolment among the Universities of Canada. He said it was "proper and inevitable" that the University of B.C. should have faculties of law, medicine, dentistry, pharmacy, physical education and forestry.

Among those in attendance in addition to Dr. and Mrs. MacKenzie, were Hon. Albert Matthews, Lieutenant-Governor of Ontario, and Mrs. Matthews, Hon. E. W. Hamber, Chancellor of the University of B. C., and Mrs. Hamber, and many other notables.

Vancouver Dental Society

The regular monthly dinner meeting of the Society was held in Hotel Vancouver, April 3.

The President, Dr. N. H. Scott, was in the chair.

The considerable interest shown in matters of rehabilitation of men and women in the armed services was manifest in the extensive discussion that took place on such matters. Co-operation in regard to training of Women's Army Corps personnel as dental assistants was again brought up. Then too, the practice of sending requisitions for dental treatment of Service personnel being discharged, received considerable discussion. Sympathy was shown for the needs and the desire was voiced to co-operate to the benefit of the dischargee, but the Department of Veterans Affairs came in for criticism for its method of handling the matter. The procedure of making a diagnosis for the civilian dentist to follow and by doing this, certifying that the mouth would be dentally fit and the very low fees were felt to seriously interfere with producing the fairest result for the deserving dischargee.

The agenda included nominations for officers to the council of the College of Dental Surgeons of B.C. for Electoral Districts Nos. 2 and 3.

The Guest Speaker for the evening was Dr. R. G. Langston of Shaughnessy Military Hospital who read a paper on "Plastic Surgery". This proved to be of exceptional interest. Dr. Langston dealt not only with the advances made in plastic surgery and fine results attained, but he also stressed the psychological treatment of such cases. He called for an understanding by the public of the mental attitude of such patients.

ALBERTA:

Dr. Gilchrist Honoured

A dinner in honour of Dr. H. A. Gilchrist who has retired from the staff of the Dental Faculty of the University of Alberta, was held March 9 by 45 members of the dental and medical professions in the University cafeteria.

Dr. H. R. MacLean presided, and the speakers included Dr. R. A. Rooney, President of the Canadian Dental Association; Dean Rankin of the Medical Faculty; Dr. H. B. Ness of Camrose, and Dr. E. Jamieson of Edmonton.

Mr. R. M. Harley, of Ducks Unlimited, showed their latest picture "The Reclamation of Big Marsh."

Dr. W. S. Hamilton, Dean of the Faculty of Dentistry, presented Dr. Gilchrist with an occasional chair on behalf of the members of the Dental Faculty and dentists of the province.

Dr. Gilchrist, who has practised in Chicago, Lethbridge and Calgary, is continuing in private practice in Edmonton as a specialist in denture prosthesis.

Calgary Dental Society

The March meeting of the Calgary Dental Society was held at the Renfrew Club and the following officers were elected to take office at the September meeting:—

President: Dr. Baden Powell.

Vice-President—Dr. A. C. Steeves.

Sec.-Treasurer—Dr. C. M. Lowry.

Following an extended discussion on various matters of business, Dr. John W. Clay gave a talk on "Some Problems of Exodontia."

The President Dr. D. E. Green was in charge of the meeting.

Calgary Dental Assistants' Association

Meetings of this Association were held March 26 and April 9.

On the 26th, Mr. T. Laidlaw of the Cook-Waite Laboratories gave an interesting talk on "History of Anaesthetics," "Care of the Hypo" and "Zephiran and its Many Uses."

On the 9th, Mr. Austin Hay of the Ash Temple Company explained the uses and meaning of many dental terms as well as giving some tips on how to remove stains.

Mr. L. Henderson of the same Company outlined the care of the unit and other equipment.

SASKATCHEWAN:

Saskatoon Dental Society

This Society reports with considerable gratification clinics by Dr. V. Lloyd and Dr. H. Knight of Edmonton on April 11. Dr. Lloyd's subjects were Periodontia and Trench Mouth, while those of Dr. Knight were The Surveyor in Partial Dentures and Aesthetics in Full Denture Construction. The clinics were of real practical value and the Society is very grateful to these outstanding Clinicians.

MANITOBA:

Manitoba Dental Association

A few hours after the crushing news of the death of President Roosevelt was broadcast the Manitoba Dental Association was further shocked by the sudden passing of one of our most respected members and citizens in the person of Dr. W. F. Taylor. Dr. Taylor had been in active practice in Manitoba since 1899 and was working until closing time on the day of his death. Forty-six years is a long time to practice dentistry without any visible effect upon one's physique and Dr. Taylor looked the picture of health. How true is the saying—"Here today and gone tomorrow."

Dr. Taylor was one of the stalwarts to whom one could go for a word of advice and friendly council. He was always glad to help and his judgment was sound. It was these qualities which made him such a valued member of Winnipeg's Khartum Chapter of the Mystic Shrine of which he was chief Potentate for five years. He was also for many years Vice-Chairman of the Board of Management of the

local Shriners' Hospital which exists for the care of crippled children, hundreds of whom have been restored to normal function and activity during Dr. Taylor's vice-chairmanship, "By their works ye shall know them."

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Winnipeg Dental Society

Manitoba is expecting a Health Centre. The plans have been given general outline by the Department of Architecture of Manitoba University and were explained in some detail at the March meeting of the Winnipeg Dental Society by Dr. P. H. T. Thorlakson, one Winnipeg's noted surgeons and a prime mover in the scheme, which includes a dental department.

At the same gathering Major Reeve Morrison who has been overseas for five years gave an interesting and informative description of his experiences in England, Sicily and Italy as an active member of the Canadian Dental Corps. He is at present in charge of the dental service at Fort Osborne Barracks, Winnipeg. The meeting and the dinner preceding it was presided over by Dr. Wm. Robb, president of the Society.

ONTARIO:

Short Post-Graduate Courses for Dentists

Faculty of Dentistry, University of Toronto

A post-graduate program is being planned by the Faculty of Dentistry, University of Toronto, in order to provide two-week courses for dentists returning to civil practice after service with the Armed Forces, together with others who wish to become conversant with the more recent developments in dental service.

The content of these courses has been carefully selected with the view of enabling all who attend to obtain readily, first-hand knowledge of the most recent techniques and developments in dentistry, as well as in the related medical and public health services.

As tentatively scheduled, the courses are. Ceramics, Dental Oral Surgery and Anaesthetics, Operative Dentistry, Operative and Interpretative Radiodontics, Orthodontics, Periodontology, Preventive Dentistry and Dentistry for Children, Full Denture Prosthesis, Partial Denture Prosthesis, Crown and Bridge

Prosthesis, Pulp Conservation and Root Canal Therapy.

Lecture, demonstration and clinical instruction will be given by members of the teaching staff and others who are outstanding in the various dental fields.

Enrolment will, of necessity, be limited in order to meet the requirements of individual instruction and to afford an opportunity for broad discussion, but it is the intention to provide facilities, if at all possible, for all who wish to attend the classes. The Faculty reserves the right to revise or withdraw any course should necessary circumstances arise and will, where deemed advisable, arrange a repetition of courses so that as many dentists as possible may be accommodated.

When arranging the definitive program, every effort will be made to give dentists who are already established in practice the maximum instructional assistance at the cost of minimum disruption of office routine. It is hoped, ultimately, to provide facilities enabling practitioners to take a series of short post-graduate courses covering the entire field of general dental practice.

All inquiries as to the content of courses and particulars of registration should be addressed to the Dean, Faculty of Dentistry, University of Toronto, 230 College Street, Toronto 2B, Ontario, Canada.

Thomas Cowling,
Assistant Dean.

Hamilton

The final meeting of the Hamilton Dental Society was held on April 10 at the Hamilton Yacht Club. The popular President, Dr. Allan Quick presided. It was an evening of good fellowship and entertainment in the lighter vein. Guests were present from Toronto including Dean Mason, Harvey W. Reid, President-Elect of the Canadian Dental Association, Don W. Gullet, Harold Skilling, Harold Swales and Tom Marshall. Dr. Percy Moore in an eloquent way, presented Dr. Fred Williamson, President of the Ontario Dental Association with a memento from his colleagues in Hamilton. Dean Mason spoke briefly in connection with dental educational problems of interest to everyone, particularly those dealing with post-graduate courses. Dr. Harvey Reid was the guest speaker of the evening.

During his address, he discussed many problems being dealt with by the Canadian Dental Association and solicited the understanding and co-operation of every dentist and dental society in solving the problems to be met by our profession.

President Quick announced the new officers for 1945-46 as follows:

President	Dr. Wallace Baxter
Vice-President	Dr. Archie Leckie
Secretary	Dr. Harold Totton
Treasurer	Dr. J. Grant Countryman
Program Chairman ...	Dr. Len Easter of Dundas
Directors	Dr. W. G. Foster Dr. D. E. Shultis

Enquiring into Effect of Fluorine on Dental Health

In March, officials of the Ontario Department of Health arranged a three-day dental health survey among Woodstock school children. This is part of a research program being conducted in an attempt to ascertain the effect of fluorine content in drinking water on dental health. Since there is no fluorine in the Woodstock water supply, this city is being taken as a control centre for purposes of comparison.

The Woodstock survey follows a similar study made at Stratford, where the water contains 1.4 parts of fluorine to the million.

—Woodstock Sentinel Review—

Ottawa

The dinner meeting of the Ottawa Dental Society was held March 19 in the Quebec Suite of the Chateau Laurier. This was "Ladies' Night" with members of "The Dentists' Wives Association" in attendance.

A Toast to the ladies was given by Dr. Percy Nesbitt to which Mrs. C. Akins responded very cleverly.

The Society oversubscribed both schemes of group Insurance. The Blue Cross Plan for Hospital Care has been in effect for the last two weeks. The Continental Casualty Plan for Group Accident and Sickness Insurance is to be in effect on April first.

The speaker of the evening was Colonel G. L. Cameron who gave his impressions gained from a recent visit to the United

Kingdom relative to the Dental Services Overseas. The address given in the inimitable "Cameron Style" greatly interested and delighted everybody.

Dr. Thomas Provost, President of the Society, presided during the evening and delivered a very timely message to the gathering, as well as thanking the members for their wonderful support during the year. He also extended his best wishes for success to the new executive and hoped that their ideal would be the advancement of the Profession of Dentistry and their Dental Society.

A slate of officers for the year 1945-1946 was brought in, consisting of:-

Past President ...	Dr. Thomas Provost
President	Dr. Harold Armstrong
Vice-President	Dr. Paul A. Coté
Sec.-Treas	Dr. Elwin S. Macartney
Council	Dr. George Barrett, Dr. Jack Laurence, Dr. C. E. Laurin, Dr. Russell Larmour, Dr. Douglas Ferguson, Dr. Albert Gauthier, Dr. J. G. Dormer, Dr. A. Slone.

Noticed at the Head Table were:-

Dr. and Mrs. Provost, Brigadier and Mrs. F. M. Lott, Colonel and Mrs. G. L. Cameron, Dr. and Mrs. Sydney Bradley, Dr. and Mrs. George Beattie, Dr. and Mrs. Percy Nesbitt, Dr. and Mrs. A. A. Cameron, Dr. and Mrs. Harold Armstrong, Dr. Paul A. Coté, Miss Martha Aubry, Lieutenant-Colonel P. Hannaford, Mrs. Rex Slemon and Mrs. W. McCutcheon (joint presidents of the Dentists' Wives Association) Mrs. C. Akins.

Paul A. Coté, Secretary.

St. Thomas

The final meeting of Elgin Dental Society was held in the Y. M. C. A., St. Thomas on April 11.

Dr. Harold Dickson president of the society presided. A group of about ten guests were present from London to enjoy the hospitality of their neighbours. The guest speaker was Dr. T. R. Marshall whose subject was "The Maintenance and Management of a Busy Practice." The speaker endeavoured to project some past war problems and their solution beginning now. There were some 20 to 25 members and guests present.

Dental Laboratories Association of Ontario Plan Convention May 26, 27, 28

The program of the Convention follows:

Saturday A.M.	—Registration
	—Conducted Tour of the Canadian Dental Corps Technical Training Centre
P.M.	—Mr. Russel Copeman, Montreal Clinician. Subject: "Dentures of To-morrow"
Evening	—Banquet, Entertainment, Business Meeting
Sunday	—Golf, Sight-seeing, Good Fellowship
Monday A.M.	—Clinics at Ontario Dental Association Convention
12.30	—Luncheon, Guest Speaker
2 p.m.	—Major Ford W. Stevens, D. C., United States Army Regional Hospital, Fort George G. Meade, M.D.
	—Subject: "Acrylics in Operative Dentistry"—methods of construction and support of anterior and posterior bridges.
4 p.m.	—Dr. C. B. Penrose, New York, Subject: "Naturalness in Denture Aesthetics"

Dental Nurses' Alumnae Association

The Dental Nurses' Alumnae Association held a tea on Sunday afternoon, April 15 at the home of Mrs. Ida Davis in honour of the graduating class in Dental Nursing at the University of Toronto. Miss Lillian Potter, Vice-President, poured tea and those assisting were: Miss Jean Bryson, Social Convener, Miss Lola Gerow, Miss Dorothy Quinn, Miss Ellen Rollison, Miss Doreen Klager, Miss Eleanor Mason, Mrs. Gwen Cole, Miss Jean Miller, Miss Lois Mooney and Miss Barbara Booth.

The Dental Nurses' Alumnae Association Annual Convention will be held at the Royal York Hotel, May 28, 29, 30. Each graduate dental nurse is urged to register with the Dental Nurses' Alumnae Association.

Ida E. Davis.

Ontario Dental Nurses' and Assistants' Association

The generous co-operation of the Ontario Dental Association has made it possible for

us to include several of their guest speakers on our program. In addition to that, we have secured other excellent speakers and clinicians.

The scientific portion of the program will be held jointly with the Dental Nurses' Alumnae of Canada, while the business and social events will be held separately.

The President's Reception on Sunday evening affords us an opportunity to become better acquainted with one another and thus enjoy together the days that follow more fully.

Ruth Yanke, Clinic Convener, has secured for us a number of interesting and helpful clinics which we cannot afford to miss. Even one time-saving suggestion received from one of these clinicians would make the Convention very worth while.

The Fun Parade Banquet promises to be an evening of fun and relaxation for us all. The Fellowship Luncheon is a social "high light" for Tuesday. The Installation of Officers is an impressive climax to three days of learning and renewal of friendships.

Hotel accommodations are limited, so we advise that you make your reservations early. Lura Edwards, 1474 Bathurst Street, Toronto, our Convention Hostess, will be pleased to look after your needs.

We extend to all the dental nurses and assistants a cordial invitation to meet with us and we are looking forward to meeting YOU at our 14th annual Convention.

Remember the dates . . . May 28, 29 and 30.
Arlene Jemison Creeny.

Reunion Notice

Freshman class 1914, graduating 1917, and all graduates ever associated with it during college days, meet Monday May 28, at Ontario Dental Convention.

H. D. Leuty.

Class 2T5 Reunion—Twenty Years

A re-union of the Class of 2T5 will be held in the Library of the Royal York Hotel, Main Mezzanine floor, Mondal, May 28. Dinner at 6.30 PM.

Lloyd M. Grose,
663 Greenwood Avenue,
Toronto, Ontario.

Dr. Walter E. Willmott Bereaved

Canadian dentists graduating from Toronto will learn with regret the passing of Mrs. Willmott. She died on March 23, at the age of 75 from a cerebral hemorrhage. She had been an invalid for 20 years.

Many of us will remember Mrs. Willmott as a charming hostess with a radiant personality. She was the daughter of the Rev. James Thom and was born in Norwood, Ontario. Before her affliction she was very active in her church; indeed it was her great interest in life. To Dr. Walter, as he is affectionately known, to his son Earl, of China and his daughter in Toronto, is extended the sincere sympathy of their friends in the great loss of a dear wife and mother.

NEW BRUNSWICK:

Colonel Edgecombe Awarded O.B.E.

Colonel John Frederick Edgecombe has been made an Officer of the Most Excellent Order of the British Empire, according to an announcement from Ottawa. Colonel Edgecombe is with the Canadian Dental Corps overseas.

—Saint John Telegraph-Journal—

QUEBEC:

Montreal Dental Club

The monthly meeting of this Club took place at the Club Rooms in the Drummond-Medical Building on February 12. The main speaker of the evening was Dr. Armand Fortier, who is the Quebec representative on the Board of Delegates of the C. D. A. and is therefore well posted on the workings of this organization. He referred to the proposed Government Plan of assignment, procurement and rehabilitation of returning dental personnel, dental treatment for ex-service men, D. P. and N. H. fees, Education, Health Insurance, etc. He reviewed at some length the discussions which took place between the Government representatives and the C. D. A.

The next speaker was Dr. D. P. Mowry, President of the College of Dental Surgeons of the Province of Quebec, who explained the workings of the College, and paid tribute to the French speaking dentists and referred to their sense of fairness in appointing a fair

representation of English and Jewish dentists to the Board. He also mentioned the many committees and sub-committees and their workings.

Dr. Gerald Racey, a member of the teaching Staff of McGill, said a few words regarding the proposed Post Graduate work which will be undertaken by McGill University in the very near future. The meeting

was well attended, and closed with light refreshments.

Dean Arthur L. Walsh was in Chicago, attending the meeting of the American Association of Dental School Deans. Dr. M. L. Donigan was also in Chicago in search of suitable clinic material for the forthcoming 21st Annual Fall Clinic of the Montreal Dental Club, which will be held on October 24-26.

GENERAL NEWS

Rehabilitation of Dentists in Military Forces

The Canadian Dental Association has published an interesting and instructive booklet for members of the Association now serving in the Military Forces, which recognizes the responsibility of organized dentistry in all its branches to assist in every way possible the rehabilitation of its members.

Preliminary surveys have been made. Committees have been formed and all provincial organizations are co-operating.

According to present arrangements each dentist will receive, after retirement from the Services:

1. One month's full pay and allowance of rank at time of retirement.
2. \$100.00 clothing allowance.
3. War Service gratuity.
4. Re-establishment credit.
5. Pre-retirement medical examination.
6. Free remedial treatment for twelve months after retirement.

Additional, and in some instances, conditional or elective benefits:-

- (a) Post-graduate and refresher courses.
- (b) The right to participate in Veterans' Land Act under the small holdings section.
- (c) The right to participate in the Veterans' Insurance Act.

Explanatory notes in the foregoing are included in the booklet.

Committee on Dental Research

At a meeting of the National Research Council of Canada held on March 16, an Associate Committee on Dental Research was authorized and composed of the following

members:

1. *Representing Dental Profession and Term to expire.*

Dr. H. K. Box, Research Professor of Periodontology, University of Toronto; March 31, 1946.

Dr. G. D. Stibbs, Member of the Board of the British Columbia Dental Association; March 31, 1946.

Dr. H. R. MacLean, Lecturer in Operative Dentistry, Faculty of Dentistry, University of Alberta; March 31, 1947.

Dr. M. H. Garvin, Editor in chief of the Journal of the Canadian Dental Association; March 31, 1947.

Dr. R. G. Ellis, Professor of Operative Dentistry, Director of the Dental Clinic, University of Toronto; Chairman of the Research Committee, Canadian Dental Association; March 31, 1948.

Dr. E. Charron, Dean of the Faculty of Dental Surgery, University of Montreal; March 31, 1948.

2. *Representing the Army Dental Corps (ex officio)*

Brig. F. M. Lott, Director General of Dental Services, Army Dental Corps.

Lt.-Col. G. Franklin, Army Dental Corps.

Mjr. W. J. Linghorne, Army Dental Corps.

3. *Representing Basic and Medical Sciences and Term to expire.*

Dr. E. F. Burton, Professor of Physics and Head of the Department; Director of the McLennan Laboratory, University of Toronto; March 31, 1946.

Dr. J. B. Collip, Research Professor of Endocrinology, Director of the Research Institute of Endocrinology, McGill University; March 31, 1946.

Dr. A. R. Gordon, Professor of Chemistry and Head of the Department, University of Toronto; March 31, 1947.

S/Capt. C. H. Best, Professor of Physiology, Director and Professor in the Banting Best Medical Research Department, University of Toronto; March 31, 1947.

Dr. D. L. Thompson, Dean of the Faculty of Graduate Studies and Research Professor of Biochemistry, Chairman of the Department, McGill; March 31, 1947.

W/C J. W. K. Ferguson, Associate Professor of Pharmacy and Pharmacology, University of Toronto; March 31, 1948.

Dr. D. Mainland, Professor of Anatomy, Dalhousie University; March 31, 1948.

Dr. O. W. Ellis, Department of Metallurgy, Ontario Research Foundation; March 31, 1948.

Dr. C. J. Mackenzie, President, National Research Council (ex officio).

The first meeting of this Committee will be held in Ottawa June 1.

Therapeutics Council Holds Annual Meeting in Chicago

The annual meeting of the Council on Dental Therapeutics of the A. D. A. was held in Chicago, March 23-24. The Council received various reports and discussed future studies and actions on penicillin, fluoride, denture adhesives, dentifrices, physical therapy apparatus and other drugs and materials. Council actions with regard to the subjects discussed will be published later.

New Dean at Minnesota

Dr. William H. Crawford after having served six years as Dean of the School of Dentistry, Indiana University, returns as Dean to the University of Minnesota, where he was graduated in 1923; succeeding Dr. William F. Lasby who has reached the retirement age.

Loyola University to Build New Dental Building

The preliminary sketch of the proposed new Loyola University Medical and Dental Schools building has been received by university officials. Shaped like an inverted "Y" in plan, the building will be eight stories in height and the approximate cost will be one and a half million dollars.

Dental Chiefs of Allied Forces Meet in Paris

American, British and Canadian dental chiefs recently met in Paris to discuss mutual problems regarding the dental care of Allied troops on the Continent.

Recommendations on Dental Care for Children

A conference on dental care for children was held in Washington, D.C., February 22-23. In brief, the following recommendations were adopted:

1. Adequate Federal funds be made available.
2. Funds be made available for research.
3. Adequate care for all children regardless of income or geographical location.
4. Varied and co-ordinated methods of supplying service.
5. Sufficient professional supervision.
6. Records of standard type.
7. Children entering their first year in school to be given priority.
8. Explore use and training of auxiliary help.
9. Adequate remuneration for personnel.
10. Extension of training in dentistry for children in professional schools, clinics, hospitals and health centres.
11. Information for dentists returning from service re training in dentistry for children under the G.I. Bill.
12. Harmonizing the periods of training, provided under federal funds, with periods of training in the centres giving much training.
13. Integrate the services of the professions involved.
14. Employment of dental consultants.
15. A.D.A. to be asked to assist Children's Bureau in securing funds.

"Good Neighbour" Policy Sends Dental Films to Latin America

A total of 287 technical dental films were shipped recently to Pan-American countries as a result of a co-operative enterprise undertaken by the American Dental Association and the United States Co-ordinator of Inter-American Affairs in 1943.

Forty Years of Public Health

Condensed from A.A.S.S. Bulletin, Sept., 1944.

In the past 40 years science has made as revolutionary improvements in health as in means of education and recreation. The brilliance of these achievements has been dimmed by the rush of distractions—automobiles, radios, motion pictures, labour saving machinery, luxuries, wars. Consider diphtheria, for example. As recently as 1900 it was a common occurrence for this dread agent of Death suddenly to invade a home and strike down its most precious treasures. Now it is almost a memory. Specifically, the death rate from diphtheria was 37 times higher in 1900 than it is today. No more striking illustration can be given than that the number of American boys who have died this year on European battle fields (to September 1) is smaller than the number of American children who died from diphtheria in the year 1900, when the population of the country was only 76,000,000.

The battle against disease has continued not for a few weeks but for years and has been won on many fronts. The infectious diseases, particularly of childhood, have been largely controlled. Numerically, the death rate from typhoid and paratyphoid fever was about 30 times higher in 1900 than in 1943. It was 20 times higher for scarlet fever, six times higher for whooping cough, more than four times higher for tuberculosis, six times higher for dysentery and malaria, three times higher for pneumonia and influenza, and 15 times higher for diarrhea. If it had not been for the advances in sanitary science and medical science that have been made, these nine diseases alone would have taken ten times more American lives during the past forty years than have been lost by our armies on all the battle fields on which our young men have fallen during the entire history of the United States.

War and Medicine

Colonel Edgar Erskine Hume, of the Medical Corps of the Army of the United States, in his *MARCH OF MEDICINE* (Columbus University Press, 1944), points out that warfare involves medical as well as military objectives, out of which fact grow the advances that, paradoxically, accompany the destruction

and death of war. The enemy in the medical case is an invisible one, now no longer so deadly as of yore.

Indeed, Colonel Hume suggests that the first hospitals were created by war.

Certainly the Crimean War initiated military nursing in something like the modern sense.

State care of war veterans owes its origin to Louis XIV.

The Crusaders brought back with them the medicine of the East.

Greek culture, including its medicine, was spread throughout the ancient world by Alexander the Great.

Roman medicine went with the legions to Germanic barbarians.

Persian medicine flourished as never before after the Arabian conquest.

The French school of medicine was born in the throes of the Revolution; at least French medicine was "reorganized" as a result of it.

"The Franco-Prussian War served to liberate France from the decadence of the Second Empire and to establish the Third Republic, in which medicine reached great heights.

Electron Lens Bares Tooth's Hidden Canals

by Edward Barry

The electron microscope, by means of which a tooth area only 1/10th the width of a toothbrush bristle can be photographed and studied in full detail, has opened up dazzling new possibilities in dentistry, according to Dr. C. H. Gerould, a research engineer with the Dow Chemical Company, Midland, Mich.

"It is as though a dental laboratory technician had been working in the dark and a flood of light had suddenly been turned on," he said. With the electron microscope, he explained, things can be seen and measured whose very existence had up to recently been in doubt.

Examples, Dr. Gerould said, were the tiny canals within the teeth—50 miles of them in a single tooth—which no eye had ever seen. He showed pictures of the surface area of a tooth, magnified more than 100,000 times, in which the openings of the canals were great craters.

The increased knowledge of tooth structure and the greater opportunity for early detection of disease of the teeth which the electron microscope has made possible should, in Dr. Gerould's opinion, help dental researchers in the further development of methods of tooth preservation.

"Preliminary work on tooth structures," he said, "has indicated that the electron microscope . . . can be used successfully, thus giving the dental research worker a new tool for application in his field."

As an example of the power of the electron microscope, a scientific marvel whose advanced

development has taken place in the last three years, the bristle of a toothbrush can (by means of photographs of small areas of it) be blown up to the size of a giant redwood tree.

From: Chicago Tribune—11-18-44 per
A. D. A. Bul.

Consultation Service

The Second District Dental Society of New York has set up a Consultation Committee of leaders in the profession and this Committee will assist any dentist in solving his difficult problems without fee.

IN MEMORIAM

Colon E. J. Smith of London, Ontario, in his 80th year, died April 19. He was graduated from the Royal College of Dental Surgeons of Ontario in 1893.

Dr. Smith is survived by his widow, two sons and one daughter.

a member of Assiniboine Lodge, A.F. and A.M. His favorite recreation was golf.

D. McGillivray is survived by his widow and daughter.

Ellsworth T. Campbell of Ottawa, Ontario, died April 10. He was graduated from the Royal College of Dental Surgeons of Ontario in 1910. For a number of years following his graduation, he practised dentistry in Detroit, Michigan. He moved to Ottawa some five years ago and had been in practice there since then.

Dr. Campbell is survived by his mother and one sister.

William F. Taylor of Winnipeg, Manitoba, aged 67, died on April 12. He was born in Campbellford, Ontario, and came west forty-seven years ago, practising dentistry since that time in association with his brother, Dr. J. F. Taylor.

He was a member of Prince Rupert Lodge, A.F. and A.M., the Scottish Rite, and Khartum Temple of the Mystic Shrine. He was also a member of the Board of the Shriners' Hospital for Crippled children, and was a past potentate of the Shriners. He was one of the founders of both the Manitoba Amateur Hockey Association and the Canadian Amateur Hockey Association, and was first president of both. At the time of his death he was honorary president of the Manitoba Amateur Hockey Association.

Dr. Taylor is survived by his widow, three brothers and two sisters.

Robert A. McGillivray of Winnipeg, Manitoba, aged 64, died suddenly on Portage Avenue on Saturday morning, April 28. He was graduated from the Royal College of Dental Surgeons of Ontario in 1904 and practised in Winnipeg since then. He was

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REDACTEUR

ALCIDE THIBAUDEAU, D.D.S., A.I.D.O.

516, est, rue Sherbrooke, Montréal.

Le dentier immédiat et permanent

Depuis quelques années, j'ai adopté la pratique du dentier immédiat à la plus grande satisfaction de mes patients et de moi-même. Cette méthode de faire des dentiers me semble solutionner tous les problèmes compliqués de la prothèse.

Les problèmes de l'esthétique, de l'articulation et de l'occlusion centrale ne sont plus des problèmes. Toutes ces questions sont réglées facilement et sans risque avec la pratique du dentier immédiat.

Si cette méthode est si bonne et règle tous les problèmes de la prothèse, pourquoi tous les dentiers ne sont-ils pas faits de cette manière?

C'est parce que les dentistes, en général, ne se préoccupent pas suffisamment de se perfectionner dans la mécanique dentaire. Mon expérience m'a démontré que pour avoir de très bons résultats dans la pratique du dentier immédiat le dentiste doit être chirurgien et en même temps très bon mécanicien.

Il doit exister une coopération parfaite entre le travail fait à la chaise et celui qui est fait au laboratoire. Cette coopération doit être si complète qu'il faut absolument que ce soit la même personne qui enlève les dents, qui fasse les corrections nécessaires de la bouche, qui fasse les corrections sur le modèle dans le laboratoire, qui monte les dents et qui cire le dentier. Si une ou deux de ces opérations sont faites par une autre personne, elles entraînent une faiblesse dans le travail et souvent une faillite dans le résultat final.

La condition physique, le tempérament et l'âge du patient sont les principales considérations qui pèsent dans la balance pour le choix d'un dentier immédiat. Les personnes qui sont des mauvais risques pour la chirurgie doivent être mises de côté car ce genre de travail, en plus de nécessiter de nombreuses extractions, entraîne souvent des interventions chirurgicales. Dans ces mauvais risques il faut inclure les hémophiles, les diabétiques, les syphilitiques et aussi la dyscrasie sanguine, les déficiences de nutrition et les déficiences nerveuses.

La résistance, la tolérance et la confiance sont des aides précieux, que le patient soit jeune ou vieux, mais la coopération est toujours plus complète chez les jeunes.

De nombreuses anomalies doivent être prises en considération lorsqu'il s'agit de la

construction d'un dentier immédiat. Ces anomalies et malformations peuvent être classées en deux catégories. Premièrement, celles qui sont composées de tissus durs; deuxième catégorie, celles qui sont formées de tissus mous. Il faut considérer aussi les déformités causées par le traumatisme et la disposition anormale des muscles.

Dans le maxillaire, nous rencontrons fréquemment une excroissance osseuse massive à la tubérosité. Cette excroissance à la tubérosité entraîne habituellement une articulation anormale. Lorsqu'il s'agit de faire un dentier, il n'y a pas suffisamment d'espace entre les deux mâchoires pour utiliser des molaires, parfois on ne peut même pas mettre d'appui pour le dentier. Nous rencontrons aussi des excroissances sur la surface du palais suffisamment grosses pour nuire au contour du dentier.

La plus commune des anomalies du maxillaire est une excroissance à la partie antérieure de l'alvéole. Cette excroissance est souvent si considérable qu'elle fausse l'articulation et affecte l'esthétique. Un dentier ordinaire fait pardessus cette excroissance ne peut donner qu'une mauvaise apparence et causer l'hypertrophie des tissus. Le dentier immédiat peut ordinairement remédier à ces défauts avec succès.

Les anomalies dans les tissus mous proviennent souvent de l'hypertrophie causée par un dentier partiel mal fait ou mal balancé. Ces anomalies se voient aussi dans le déplacement des muscles qui viennent parfois se fixer jusqu'au sommet des gencives. Il y a aussi le filet entre les centrales qui prend parfois une telle proportion qu'il nuit à la stabilité de la pièce artificielle.

Malgré toutes ces irrégularités que je viens de spécifier, il est possible la plupart du temps de faire des dentiers immédiats et de rétablir l'esthétique normale de la figure.

On peut réduire les excroissances des tissus durs ou mous, rétablir l'uniformité des gencives en même temps, très souvent, que nous faisons l'extraction des dents; en même temps que nous rétablissons l'articulation normale et préparons les alvéoles à recevoir un dentier avec gencives complètes. Car il doit être bien entendu que chaque dentier immédiat doit être fait avec une gencive complète, indépendamment des irrégularités, ou de la largeur ou de la longueur des tissus durs ou mous, car la gencive a été préparée à cette fin.

Les effets de l'esthétique, l'efficacité de la mastication, et le confort qui peuvent être obtenus d'un dentier immédiat sont en proportion directe de la forme anatomique et de la qualité des tissus durs et mous des gencives et des relations des deux mâchoires.

Le procès alvéolaire vient et part avec les dents. Cet avancé doit être accepté avec réserve, car si ce tissu osseux est durci par un dentier immédiatement après l'extraction des dents, il est surprenant de voir comment l'alvéole se remplit de tissus secondaires, qui plus tard se transforment en sel de chaux.

Il est bien reconnu que la résorption des alvéoles est causée par le manque de protection des gencives après les extractions, elle est causée aussi par le traumatisme auquel ces alvéoles sont sujets.

Pourquoi prendre tant de précaution pour protéger les alvéoles? C'est parce que ce tissu osseux joue un rôle considérable dans la stabilité des dentiers, spécialement la partie externe de ces alvéoles. En plus de nous donner une surface plus grosse et plus large pour maintenir les pièces artificielles, cette partie externe de l'alvéole nous permet de faire le point d'appui de nos dents sur la partie forte de la gencive, ce qui empêchera le dentier de basculer lorsque la pression de la mastication arrivera sur ces dents.

L'opinion générale veut que le dentier ne soit pas tolérable tant que la gencive ne sera pas guérie. Un essai convaincra les plus sceptiques que le moment le plus convenable pour insérer un dentier, est immédiatement après l'extraction des dents.

L'anesthésie locale est essentielle pour ce genre de remplacement de dents. Le dentier est pressé en place pendant que l'anesthésie est encore active. La sensibilité est pratiquement nulle.

Que se produit-il après que l'anesthésie a perdu ses effets? Nous voyons un patient assez confortable et assez heureux, capable de manger certain aliments spéciaux,

capable de voir à ses affaires au bout d'une journée ou deux. L'hémorragie est contrôlée facilement. Le caillot dans les alvéoles se trouve protégé.

Il existe un principe physiologique qui veut que lorsqu'un massage est maintenu autour d'un organe blessé, la guérison se fasse avec moins d'inflammation et moins de douleur; principe de chirurgie. Avec le dentier immédiat, le procès alvéolaire, le périoste et la muqueuse ont immédiatement du travail à faire. En recevant la pression de la mastication, le massage désiré est obtenu. Cette réaction empêche la congestion de se former dans les tissus, facilitant par le fait même le fonctionnement normal qui conserve suffisamment de vitalité aux gencives pour prévenir l'infection.

Le service de dentier immédiat donne beaucoup plus de satisfaction que les patients s'attendent de recevoir de ce genre de travail. Le dentier immédiat donne plus de satisfaction que la vieille méthode de faire faire des dentiers pour laquelle les patients ont à attendre des semaines ou des mois avant d'avoir leurs dents. Avec cette méthode de dentier immédiat, on est sûr de l'articulation normale, on est sûr de l'occlusion centrale. En même temps le patient a immédiatement des dents pour mastiquer, protégeant ainsi sa santé et sauvegardant en plus son amour-propre. Il peut s'occuper presque immédiatement de ses affaires, sauvant du temps et probablement de l'argent.

Pour ces raisons, je considère qu'on ne devrait pas avoir le droit d'obliger les patients à passer des semaines et des mois sans dents, d'obliger les patients à supporter l'humiliation de se montrer en public avec une bouche vide et une apparence affreuse, d'obliger le patient à ruiner ses alvéoles quand cette attente n'est pas nécessaire.

Si nous considérons le côté économique du problème, je suis d'opinion que ce genre de travail ne revient pas plus cher au patient que la vieille méthode de faire des dentiers. Pour appuyer ces assertions, je pratique cette méthode de dentiers immédiats depuis quatre ans; durant ces quatre années j'ai fait deux cents cas de dentiers immédiats et je n'ai pas encore refait ou même modifié la base d'un de ces dentiers.

Si les dentistes, en général, mettaient en pratique cette merveilleuse méthode de dentiers immédiats, nous pourrions avec orgueil enlever notre chapeau et dire avec Wendell Holmes: La profession dentaire a embelli et prolongé le règne de la beauté. Elle a ajouté une note d'harmonie au charme des réunions sociales. Elle a permis la perfection au flot de l'éloquence, et a enlevé au vieil âge les principaux traits caractéristiques des nombreuses années écoulées.

Avec l'usage de la technique du dentier immédiat, telle que décrite plus haut, il y a moyen de faire disparaître ce spectre caractéristique du vieil âge que nous rencontrons dans les bouches édentées.

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par ROBERT CHENEVERT, D.D.S.,
400 rue Sherbrooke est, Montréal.

Notes biographiques de quelques dentistes licenciés, il y a cinquante ans et plus

par PAUL-E. POITRAS

Le docteur J. Nolin, dentiste depuis soixante ans, mérite que nous rappelions certains épisodes intéressants de sa vie active. Il est le plus vieux praticien de Montréal, seul le docteur A. A. Lanthier, licencié un an avant lui, est le doyen des dentistes du Québec.

Des premiers élèves à suivre les cours du Collège Dentaire Bilique du Québec, licenciés il y a cinquante ans, trois vivent: les docteurs Eudore Dubeau, Stanislas

Gaudreau et C. W. Rondeau; les autres sont morts depuis un an ou plus:

W. S. Allan.....	Sherbrooke	J. Lamarche.....	Farnham
J. W. Delisle.....	Hull	E. C. Martel.....	Montréal
A. W. Gravelle.....	Montréal	R. J. McHarg.....	Coaticook
J. R. Lalonde.....	Montréal	J. Panneton.....	Trois-Rivières

H. Fauteux, licencié en 1895, était gradué du Boston Dental College; père de nos confrères Aimé et Gaspard, il exerça sa profession d'abord à Saint-Hyacinthe puis à Beauceville où il mourut en 1933.

H. C. McConnell,¹ licencié cette même année, pratiqua à Lachute, à Montréal et à Bombay, ville de l'Inde où il cessa de donner de ses nouvelles.

Cet avant-propos fait, ayons un pieux souvenir pour les morts, entretenons-nous des vivants.

JOSEPH NOLIN

Les nombreuses générations d'étudiants qui ont suivi les cours de "papa Nolin" comme nous aimions l'appeler, sont unanimes à reconnaître son talent de pédagogue et son sens artistique.

Le 23 mars 1863, naissait à Saint-Jean d'Iberville un garçon qui, adulte, deviendra un des dentistes les plus renommés du Canada et des États-Unis: le docteur Joseph Nolin.

Combien de fois n'a-t-il pas raconté que, de ses rêves d'enfant, un surtout aurait pu décider de son avenir si le sort n'avait pas disposé autrement? Ce rêve était d'être reconnu l'équilibriste le plus habile du monde; plus habile que celui qu'il avait vu évoluer dans sa ville natale. Enfant volontaire, il fixe un câble bien tendu entre deux arbres, enlève ses chaussures, monte, prend son équilibre et s'élance en glissant sur la corde; mais voilà! oh malheur! il tombe à la renverse, on court le ramasser et le médecin appelé diagnostique une hanche cassée qui immobilisera notre héros pendant plusieurs mois et mettra fin à sa carrière d'équilibriste.

Guéri de cet accident mais infirme pour le reste de ses jours, ses parents jugèrent bon de le conduire à l'Université d'Ottawa pour y faire ses humanités. Surveillé par son frère aîné, O.M.I. il y acquiert une connaissance parfaite de la langue anglaise; il apprend à apprécier les beautés de la littérature française dont il aimera toute sa vie à cultiver les muses.

A dix-neuf ans, quelle carrière doit-il embrasser? Problème des plus complexes pour un sujet si bien équilibré dont les qualités et les aptitudes intellectuelles lui permettent le succès dans n'importe quelle profession libérale. Comment s'expliquer le choix qu'il fit alors! Nonobstant les charlatans, les empiriques, les sorciers, les arracheurs de dents et les autres coupeurs de bourses encore florissant à cette époque, il opte pour la chirurgie dentaire, peut-être influencé par un dentiste dont il admire le talent au point de vouloir suivre ses traces.

En 1882, le quart des dentistes du Québec était de langue française, la balance anglaise; de ceux-ci je dois nommer William George Beers, écrivain, militaire, sportif dont le cabinet de consultation, situé au numéro de la rue Beaver Hall Terrace, était considéré comme l'un des plus achalandés de Montréal; Beers, élu deux fois président des dentistes du Québec, avait la réputation d'être un homme habile, consciencieux et savant. Pour se conformer à la loi, les élèves d'un dentiste devaient faire chez leur patron trois ans d'apprentissage, ils passaient ensuite un examen sur la théorie et la pratique devant les examinateurs nommés par l'Association des dentistes. L'apprentissage était payant la plus part du temps. Un contrat dûment légalisé liait les deux parties. Une école spéciale pour la chirurgie dentaire n'existait pas encore dans le Québec. Le jeune Nolin, ambitieux, certain de son talent, voulant, réussit à s'inscrire comme élève chez ce praticien qui se dévoua toute sa vie au service de la profession dentaire et inculqua à son apprenti la nécessité du sacrifice au bien général.

(1)—L'annuaire de l'Université Bishop de Lennoxville ne mentionne pas le nom de H. C. McConnell parmi les gradués de l'année 1895.

Licencié en 1885, il y a donc soixante ans, il partit se perfectionner aux Etats-Unis et obtint un degré de docteur en chirurgie dentaire du Philadelphia College of Dentistry.

Revenu au pays il s'installe dans la petite ville de Sorel; en 1892, il épouse mademoiselle Boucher; il voit de ce mariage naître plusieurs enfants dont quatre sont encore vivants. Vers 1899, il déménage ses pénates à Montréal où nécessairement ses talents seront mieux appréciés de ses patients. Ses confrères le nomment à deux reprises différentes président des dentistes du Québec et en 1918, président de l'Association Dentaire Canadienne.

En 1904, il trouve sa véritable voie dans l'enseignement. Malgré la rareté de l'outillage, le manque de manuels français, le peu de capitaux, aidé de bonne volonté mais sans préparation pédagogique il ouvre avec les docteurs Dubeau et Gendreau l'école dentaire française Laval qui, en 1921, deviendra la faculté de chirurgie dentaire de l'Université de Montréal; son penchant pour le professorat lui fera abandonner peu à peu son cabinet dentaire.

Artiste, il veut aider par les moyens à sa disposition à développer le goût du dentiste. lui enseigner le beau sous toutes ses formes. "Le choix d'une dent est de première importance, dit-il, que sa forme anatomique, sa couleur, son alignement avec, les autres dents ne blesse pas l'oeil; soyez artiste si vous voulez être bon dentiste".

En 1907, il ouvre au numéro 253 est, rue Sherbrooke le "Laboratoire Moderne", avec comme chef des techniciens George Poitras. Son but ultime est de servir ses confrères, il leur demande, dans une circulaire annonçant l'ouverture du Laboratoire, de remplacer l'affreuse coiffe en or par la coiffe en porcelaine, de créer une demande pour les incrustations de porcelaine et d'éviter l'obturation en or sur les incisives, de se laisser guider par les lois de l'esthétique et non pas par l'appât du gain.

Il y quelques années, dans la salle de la Faculté, rue Saint-Hubert, croyant qu'il était satisfait de son oeuvre je lui demandai: "Docteur, êtes-vous content du résultat de l'orientation artistique que vous êtes efforcé de donner aux élèves". Lui, une cigarette au bec, me regardant dans les yeux: "Nonò pas une maudit emiette". Rappelons encore un souvenir: vers 1910, nous étions un groupe d'étudiants que "Papa Nolin" avait réuni autour d'une table de laboratoire pour nous enseigner comment couler une incrustation en or, travail nouveau dont la technique était encore rudimentaire, sa démonstration finie, au moment de sortir la pièce de son moule il constate que le travail est raté, philosophiquement, alors que nous nous apprêtions à rire de son échec, lui de nous dire; "Voilà, messieurs, comment se manque une incrustation. Maintenant nous allons recommencer".

Ses nombreux élèves de quarante ans de professorat ne lui ont fait que des amis; étant l'âme dirigeante des études de la Faculté, il s'efforce d'inculquer à ses disciples cette formation qui, les études terminées, servira la société, aidera l'hygiène buccale mise au service de la santé publique, collaborera avec la profession médicale et aura le souci de la dignité professionnelle.

Malgré ses quatre-vingt-deux ans il reste un homme idéaliste, d'une verve, d'une originalité, d'une franchise, d'une bonhomie singulière. Il faut l'avoir vu gesticuler, toujours son éternelle cigarette aux lèvres, faire des mots, dire des gasconnades, citer des vers en gesticulant, en secouant sa large tête avec une figure gaie et spirituelle, pour l'apprécier à sa juste valeur.

LE DOCTEUR EUDORE DUBEAU

Le conseil de la faculté le nomma professeur émérite en 1943, et le 26 mai 1944, l'Université de Montréal lui décerna un doctorat en chirurgie dentaire "Honoris Causa" comme reconnaissance de son dévouement à l'enseignement universitaire.

Dentiste depuis cinquante ans, le docteur Eudore Dubeau, a toujours eu la réputation d'être un grand travailleur. Toute sa vie, il se dépensa et continue à se dépenser au bien de sa profession, au bien de l'Université et à celui de la cité de Montréal.

Né à Québec du mariage de E. J. Dubeau et de Camille Lacasse, il fut élève au petit séminaire de sa ville natale et chez les jésuites du collège Ste. Marie à Montréal,

d'où il sort avec le degré de bachelier ès-science. Indécis à s'orienter, il étudia simultanément la médecine à Laval et la chirurgie dentaire au collège bilingue du Québec inauguré en octobre 1892, avec trente deux élèves. Conseillé par son précepteur, le docteur J. H. Bourdon, il décida pour celle-ci et en 1895, il y a cinquante ans, il était licencié en chirurgie dentaire.

En 1896, l'université Bishop de Lennoxville ayant affilié le Collège Dentaire du Québec à sa faculté de médecine, quelques dentistes licenciés, sans titre universitaire, dont Eudore Dubeau, eurent le contentement d'obtenir les premiers degrés, de docteur en chirurgie dentaire donnés dans notre province. Ces degrés ne furent décernés qu'après un examen passé devant les professeurs de la faculté de médecine de Bishop.

Jeune marié, en 1897, il travaille d'arrache-pied à satisfaire une clientèle déjà nombreuse ce qui ne l'empêche pas d'accepter le secrétariat du Bureau des gouverneurs des chirurgiens dentistes de la province de Québec, position qu'il occupera pendant vingt-trois ans.

Organisateur inné, en 1902, il fonde, aidé du docteur F. A. Stevenson, l'Association Dentaire Canadienne dont il fut le premier secrétaire et le président de 1906 à 1908.

L'élément français, traité en cousin pauvre, par une université anglaise et protestante, n'étant pas satisfait, fut la cause qu'en 1904, en collaboration avec les docteurs J. Nolin et J. G. A. Gendreau, il ouvre une école dentaire française, affiliée à l'université Laval de Québec. Mgr. Mathieu, alors recteur, le nomme doyen, dignité qu'il garda jusqu'au mois de juillet 1944; soit une période de quarante ans.

Pour mieux se connaître, s'aider, s'assister, rien ne peut rivaliser avec la réunion des membres d'un club, d'une fraternité, d'une association; c'est pourquoi il groupe, en 1918, le plus de diplômés d'université de langue française et leur appui gagné, il organise le Cercle Universitaire, toujours bien vivant.

En 1935, les anciens de la faculté de chirurgie dentaire s'étant formé en association il est élu le premier président. Il est membre honoraire de l'école dentaire de Paris; titulaire, en 1938, du prix international Miller, décerné par la Fédération des dentistes de France; président, depuis 1942, de la commission des relations dentaires pan-américaine.

Son sens civique ne fut jamais discuté, échevin du quartier Lafontaine de 1910 à 1923 il est maintenant un des 99 conseillers. En décembre dernier, fut élu pro-maire. Après avoir lutté, pendant des années, pour une bibliothèque municipale, il fut heureux de présider sa première commission. Vers 1930, il se dévoue à l'érection du monument de sir Louis Hippolyte Lafontaine.

Ses nombreux voyages en Europe et aux Etats-Unis lui permirent de connaître plusieurs personnages imminents et ses qualités lui attirèrent de nombreux honneurs. De France, il reçut les Palmes Académiques, 1909; la rosette de l'Instruction Publique, 1916; la Légion d'Honneur, 1925, il est commandeur de l'ordre de Saint-Sava de Yougoslavie; officier de l'ordre "Honneur et Mérite" de Haïti; le Portugal le nomma consul, en 1931 et le décora de l'ordre du Christ.

Le 26 mai 1944, l'université de Montréal lui décerna un doctorat en chirurgie dentaire "Honoris Causa" comme reconnaissance d'une carrière de quarante ans d'enseignement universitaire.

Il est et il restera une des personnalités les plus intéressantes parmi les chirurgiens dentistes canadiens français.

STANISLAS GAUDREAU

Le docteur Gaudreau est corpulent, sa figure est intéressante, douce et sérieuse, marquée d'un signe de noblesse; ses manières sont simples, délicates et réservés, elles inspirent la confiance et le respect; d'une voix douce il grasseye comme beaucoup de ses concitoyens de Québec; son caractère est élevé, paisible et franc, d'une nature d'élite il est porté vers le beau et le bien, il aime la justice et la vérité; doux et bienveillant aux faibles il est sympathique et charitable aux pauvres; la médisance, la calomnie et

le mensonage le révolte au point qu'il évite tout ce qui sait être grossier; son esprit est droit, son jugement est sain avec un tact excessivement sûr.

On peut dire que le docteur Gaudreau est né dentiste, il passa sa licence à une époque où la chirurgie dentaire en pleine évolution était considérée par le public et les membres des professions libérales un métier ou mieux un art. Heureusement par son travail et sa dignité, jeune praticien, il prit place immédiatement au premier rang pour exercer une grande influence chez ses confrères; ses avis étaient écoutés et nombre de ses réformes, proposées aux assemblées furent adaptées; encore aujourd'hui ses connaissances et son expérience, acquises pendant cinquante ans, sont aux services de tous.

Le docteur Gaudreau fut pendant des années, sans rémunération, le dentiste des orphelines de l'Hospice des Soeurs de la Charité de Québec. Il est remplacé aujourd'hui par son beau-frère le docteur D. A. Déry. De ma collection, j'ai relu une plaquette d'un auteur anonyme intitulée "Hygiène pratique de la bouche et des dents à l'usage de nos pensionnats et orphelinats" de l'imprimerie d'Elz. Vincent, 234, rue Saint-Jean, Québec et éditée par l'Hospice des Soeurs de la Charité de Québec. Je suis venu à la conclusion, étant données les circonstances, que l'auteur pourrait bien être le docteur Gaudreau mais n'insistons pas.

En 1928, il fut le président du premier congrès des chirurgiens dentistes de langue française de l'Amérique du nord tenu à Montréal dans l'édifice de la Faculté de chirurgie dentaire de l'Université de Montréal.

La faculté médecine de l'université Laval de Québec créa des cours de chirurgie dentaire dont les étudiants en médecine retirèrent un grand bien: un des titulaires de ces cours fut le docteur Gaudreau. L'an passé l'Université le nomma professeur émérite; antérieurement un degré de docteur en chirurgie dentaire "Honoris Causa" lui avait été décerné.

Homme de mérite s'il en fut, tous ses confrères s'unissent à l'occasion de son jubilé de praticien pour lui souhaiter longue vie.

C. W. RONDEAU

Tout ce que je sais sur la docteur C. W. Rondeau se résume à peu de chose.

Il a toujours exercé sa profession à Westmount, aujourd'hui son fils Martin partage son cabinet dentaire, rue Sainte-Catherine coin Green; anglais de mentalité à cause de sa religion qui est le protestantisme, il est peu connu de ses confrères français mais les anglais lui reconnaissent beaucoup de qualités et ils lui ont prouvé en l'élisant maire de Westmount il y a déjà plusieurs années.

Ces quatre dentistes qui ont vécu aux temps héroïques de notre profession méritent les félicitations et les vœux de leurs confrères, je suis certain que tous s'unissent à moi pour leurs présenter nos hommages.

Société Dentaire de Montréal

Montréal, le 17 avril 1945.

Mon cher Confrère,

Sous le double patronage de "L'Association des Chirurgiens-dentistes de Langue Française de l'Amérique du Nord" et de "La Société Dentaire de Montréal", des journées d'études auront lieu à l'Hôtel Mont-Royal, à Montréal, les jeudi 31 mai, vendredi 1er et samedi 2 juin.

Elles seront principalement consacrées à des Cliniques sur les "SUBSTANCES ACRYLIQUES", par le Dr. M. N. Stern, de New York, - "SUR LES INCRUSTATIONS ET RECOMMANDATIONS D'ATTACHEMENT POUR PONTS FIXES," par le Dr. E. M. Grevatt, de Montclair, N.J., et sur les "PIECES DE PROTHESE PARTIELLES", par le Dr. A. Gueft, de New York.

Voici le programme de ces journées d'études. JEUDI 31 mai:

9.00 à 10.00 a.m. — Inscription.

10.00 à 12.00 a.m. — Incrustations et recommandations d'attachement pour ponts
fixes.....Dr. E. Grevatt
Prothèse partielle.....Dr. A. Gueft
Substances Acryliques.....Dr. M. N. Stern

“DINER LIBRE”

2.00 à 4.00 p.m. — Incrustations et recommandations d'attachement pour ponts
fixes.....Dr. E. Grevatt
Prothèse partielle.....Dr. A. Gueft
Substances Acryliques.....Dr. M. N. Stern

4.15 à 5.30 p.m. — Films.

“SOIREE LIBRE”

VENDREDI 1er juin:

9.00 à 10.00 a.m. — Films.

10.00 à 12.00 a.m. — Incrustations et recommandations d'attachement pour ponts
fixes.....Dr. E. Grevatt
Prothèse partielle.....Dr. A. Gueft
Substances Acryliques.....Dr. M. N. Stern

“DINER LIBRE”

2.00 à 4.00 p.m. — Incrustations et recommandations d'attachement pour ponts
fixes.....Dr. E. Grevatt
Prothèse partielle.....Dr. A. Gueft
Substances Acryliques.....Dr. M. N. Stern

4.15 à 5.30 p.m. — Forum. Boîte aux questions, Discussions générale.

7.00 p.m. — BUFFET FROID.

ELECTIONS DE L'EXECUTIF DE LA SOCIETE DENTAIRE.

9.00 p.m. — Cinéma.

SAMEDI 2 juin:

9.00 à 10.30 a.m. — Clinique de table par divers Confrères locaux et de l'extérieur.
Invitation générale aux Confrères qui ont des travaux à présenter.

10.30 à 12.00 a.m. — Equilibre de l'Occlusion sur Patient (Meulage des dents).
.....Dr. Gerald Plamondon

Le droit d'inscription à ces journées d'études est de \$6.00.

Je vous serai très obligé, mon cher Confrère, de bien vouloir me faire savoir le PLUS TOT POSSIBLE si vous serez des nôtres et, dans l'affirmative, de m'adresser votre cheque de \$6.00.

Nous retiendrons des chambres à l'Hôtel Mont-Royal à tous nos confrères qui nous répondront très rapidement en nous envoyant le montant du droit d'inscription, et qui nous le demanderont.

Je me permets de vous rappeler que toutes les Conventions, les Congrès, toutes les Journées d'Etudes sont désormais impossibles aux Etats-Unis, — qu'ici même c'est, à l'heure actuelle, une chance inespérée d'avoir pu réserver les salles et les chambres nécessaires à l'Hôtel Mont-Royal. Ces trois journées d'études n'en prennent que plus d'intérêt, et “L'Association des Dentistes de Langue Française de l'Amérique du Nord” ainsi que “La Société Dentaire de Montréal” sont infiniment heureuses de les offrir à la Profession Dentaire de la Province.

Dans l'attente de votre obligeante et très prompte réponse, je vous prie d'agréer, mon cher Confrère, l'expression de mes meilleurs et très cordiaux sentiments dévoués.

DOCTEUR GABRIEL LORD

Président de la Société Dentaire de Montréal.

1426 rue Amherst, Montréal - 24.

L'Antichambre de la Maladie

(Le mal)

Par le Docteur F. WATRY,

Président de la Ligue Belge d'Hygiène Dentaire.

Mon premier souci en prenant la parole sera de tenter une justification du titre de cette causerie et de son inscription au programme des conférences de la Société de Médecine Préventive et d'Eugénique.

Je pourrais me borner à citer le fameux proverbe arabe: "La Mort entre par la bouche". A cette évocation à elle seule insuffisante et d'ailleurs banale permettez-moi d'ajouter, en genre d'introduction, un très sommaire rappel de quelques notions morphofonctionnelles.

Si nous divisons la tête humaine par un plan passant par l'apophyse orbitaire du frontal et le trou occipital, plan correspondant à peu près à la base crâne, nous constatons que la région postéro supérieure à ce plan est entièrement occupée par les centres nerveux et leur calotte osseuse protectrice, tandis que la partie antéro inférieure peut-être considérée comme une masse osseuse fortement boursoufflée de cavités, les unes entièrement fermées, les autres communiquant avec l'extérieur de façons très diverses.

Ces dispositifs hébergent une série d'organes assurant eux-mêmes quelques unes des fonctions de relations les plus délicates et des stades les plus importants des fonctions végétatives de l'individu, vue, ouïe, odorat, ont leurs organes de perception logés dans l'étage supérieur de cette zone végétative que nous dénommerons ainsi par opposition à la zone cérébrale. L'étage moyen et inférieur sont occupés par le carrefour aéro-digestif et ses dépendances: la voie nasale, comprenant les fosses nasales, avec ses chicanes fonctionnelles, les cornets; la voie digestive comportant le massif maxillo-dentaire et la cavité buccale. Ce carrefour aéro-digestif est tellement important que très justement Pierre Robin l'a dénommé confluent vital fonctionnel.

Cette région abrite donc les organes assurant les stades initiaux des fonctions capitales que sont la respiration et la digestion comme d'autre part elle est largement en communication avec l'extérieur on peut donc la considérer comme l'antichambre de l'organisme humain.

Le bon fonctionnement de ces organes est intimement lié à une harmonie morphologique aussi parfaite, aussi stable que possible. Tout déséquilibre morphologique entraîne automatiquement un déséquilibre fonctionnel qui est lui-même suivi d'un retentissement général rapide.

Or, cet équilibre morpho-fonctionnel est extrêmement instable. Il a toute la précision, mais aussi toute la sensibilité d'un régulateur et sa sensibilité s'accroît de ce contact large avec l'extérieur dont, dans nos régions surtout, nous ne connaissons que trop l'instabilité et les dangers. Il en résulte que l'antichambre de l'organisme devient aisément l'antichambre de la maladie, ce qui lui confère une importance capitale dans le problème de la prophylaxie, de la prévention, et dans la lutte pour la protection de la santé.

Dans cet antichambre de l'organisme, la voie respiratoire et la voie digestive sont, dans leurs principaux éléments, tellement confondus, tellement interdépendants qu'il est impossible de les séparer au point de vue qui nous intéresse aujourd'hui. C'est pourquoi, lorsque le bureau de la Société de Médecine Préventive et d'Eugénique voulut bien me faire l'honneur de me charger d'une conférence traitant principalement du domaine maxillo-dentaire j'ai estimé que l'intérêt du sujet perscrivait de ne pas le séparer de cet ensemble dont nous avons ébauché l'esquisse, et vous m'approuverez d'autant plus que j'ai eu l'heureuse chance de trouver en Monsieur le Professeur JAUQUET un collaborateur dont la haute autorité et la forte expérience assureront à cette conférence un intérêt et une valeur démonstrative que, livré à moi-même je n'aurais pas réussi à lui conférer.

* * * *

Je ne me dissimule pas d'ailleurs que la tâche qui m'incombe dans cet exposé ne laisse pas d'être assez ingrate. Le rôle de l'Hygiène bucco-dentaire dans l'armement prophylactique est dans notre pays encore très méconnu ou tout au moins il est loin de s'imposer à la masse avec la même force que les croisades menées contre les principales maladies sociales.

De nombreux facteurs ont fortement retardé chez nous le développement de ce qui devait être une branche importante de l'Hygiène Sociale.

Les préjugés les plus vétustes restent encore attachés à un domaine qu'une vieille réputation de terreur contribue au surplus à maintenir dans une atmosphère extrêmement hostile à toute expansion vers la prévention.

Les soins dentaires autres que la véritable mutilation que constitue l'extraction passent pour pratique de luxe, et doit-on s'étonner de semblable état de choses lorsque l'on constate que des grandes administrations ont exclu ou omis la stomatologie de la liste des spécialités: que naguère encore les ayant droit aux soins médicaux d'un des plus importants rouages de l'Etat ne pouvaient réclamer que la seule extraction dentaire au titre de prestation médicale gratuite, ce qui avait pour conséquence de pousser les agents de cette administration à devenir des édentés précoces, à force d'avoir réclamé l'extraction pour la moindre carie douloureuse. Voilà ce qui peut s'appeler de l'hygiène sociale à rebours.

On ne peut se défendre contre un véritable sentiment de confusion lorsqu'on compare semblable compréhension à ce qui se passe dans nombre de pays, voire même de pays voisins. Sait-on qu'en plusieurs villes d'Allemagne la carie dentaire a complètement disparu dans la population scolaire notamment à Bonn et Hanovre? Sait-on qu'en ce pays le service de thérapeutique dentaire préventive est généralisé et systématisé dans villes et campagnes? Qu'en Norvège pays principalement intéressé à la lutte en raison de la fréquence extraordinaire de la carie, grâce à un effort réellement admirable la proportion est, en quelques années tombée de 90 à 50%. Sait-on qu'en Amérique. . . Mais je ne puis vraiment pas songer à commenter ici l'exemple américain. Une conférence exclusivement réservée à un tel sujet suffirait à peine à en évoquer les traits les plus saillants.

Je me permets cependant de faire allusion à un fait tout récent et qui nous intéresse tout particulièrement. Je veux parler de ce geste fastueux d'un mécène américain offrant à la ville de Bruxelles, après avoir fait bénéficier de la même générosité Londres, Rome, Stockholm et Paris, la somme de 1 million de dollars pour l'édification et l'aménagement d'une clinique dentaire infantile.

Avant même que ce merveilleux projet soit réalisé, il a déjà fait par sa seule publication, pour le développement de la prophylaxie bucco-dentaire plus que de nombreuses années d'efforts trop méconnus. En effet, le public a été nettement impressionné par cet événement; la réflexion et le désir de documentation ont suivi le premier mouvement de surprise. Je n'en veux pour preuve que les demandes de renseignements et marques d'intérêt qui ont rapidement suivi en nombre particulièrement élevé une conférence faite récemment à l'I.N.R. par la Ligue d'Hygiène Dentaire, sous les auspices de la S.M.P. et d'E.

On me dira peut-être que l'importance du système dentaire n'est plus aussi méconnue qu'autrefois; que le souci de se prémunir contre les conséquences et complications de toute atteinte à leur intégrité a fait de réels progrès. Je n'en disconviendrais pas, mais, il n'en est pas moins vrai que le public belge a été étonné par l'annonce d'une telle libéralité, la plus forte pensons nous qui ait jamais été faite par initiative privée, et cela parcequ'elle est exclusivement consacrée à cette affectation très spéciale qui dans l'esprit général reste encore à un rang très secondaire dans les préoccupations de protection sociale.

La fastueuse générosité de Mr. Eastman perd son caractère insolite lorsqu'on sait à quel point le peuple américain a compris l'importance de cette porte d'entrée aux atteintes contre l'intégrité morphologique et biologique que constitue la bouche.

Nous ne pourrions rendre assez grâces à la Société de Médecine Préventive et

d'Eugénique qui, dès les prémisses de son activité a comprise que la prophylaxie bucco-dentaire doit jouer dans la réalisation de son programme un rôle de premier plan et de nous avoir offert l'occasion de défendre et justifier cette prétention dans des conditions aussi favorables. C'est ce à quoi je voudrais à présent m'appliquer.

* * * *

L'état de santé peut-être considéré comme un état d'équilibre, d'harmonie, non seulement entre les divers organes mais encore entre cette collectivité organique que constitue le corps humain, et le milieu dans lequel elle vit. Ce milieu recèle en outre d'innombrables facteurs et influences pathologiques contre lesquels l'être sain doit être immunisé ou protégé.

Nous savons que l'organisme humain est au point de vue biologique en contact très étroit avec le milieu dans lequel il vit. Le revêtement cutané lui-même ne constitue pas un isolant hermétique et dans les régions qui nous intéressent, cet isolant présente des solutions de continuité qui constituent les orifices des cavités naturelles. Ces dernières sont elles-même en relation directe avec le milieu extérieur, dont elles peuvent aisément subir les modifications. L'organisme dispose bien entendu de moyens de défense. La bouche à l'état normal doit être fermée par les lèvres. D'autre part la muqueuse et le milieu buccal possèdent des dispositifs et propriétés protectrices. Mais cette protection est strictement conditionnée par l'harmonie morphologique ainsi que par l'intégrité tissulaire et fonctionnelle.

Qu'il se produise le moindre déséquilibre morphologique et la protection disparaît.

Je ne pourrais citer de meilleur exemple de ce déséquilibre que les cas des respirateurs buccaux soit par sténose nasale, soit par glossoptose, c'est-à-dire par atonie de la langue et du plancher buccal.

La dysmorphose maxillo-faciale est d'ailleurs le type le plus caractéristique de ce déséquilibre morphologique entraînant immédiatement le déséquilibre fonctionnel: déséquilibre respiratoire, par changement des voies respiratoires physiologiques, déséquilibre digestif par impotence fonctionnelle masticatoire des maxillaires. Le Dysmorphique maxillaire respire, mal, de l'air qui n'a été ni filtre ni réchauffé par la voie nasale. C'est le type de l'enfant aux rhumes fréquents, à la gorge sensible: les poumons eux-mêmes ne résisteront pas longtemps à une telle épreuve. C'est le type aussi de l'enfant à l'appétit capricieux, mâchant mal, ou (passez-moi ce terme un peu vulgaire) "tripotant" en bouche des aliments qui s'en vont dans le tractus digestif sans avoir subi les stades importants de la digestion buccale. Comme le poumon, l'estomac ne résistera pas à cette épreuve et ce sera pour plus tard la genèse d'une série de gastro-entéropathies rebelles.

Parmi les moyens de protection destinés à défendre l'organisme au niveau des orifices naturels, bouche et fosses nasales, il convient de retenir ici plus particulièrement cet ensemble de tissus lymphoïdes connu sous le nom d'anneau lymphatique de Waldeyer, mais comme on le sait aussi, ces facteurs de défense, lorsqu'ils succombent dans une lutte inégale entre un ennemi trop puissant dans les affections aiguës, ou trop persévérant comme dans les troubles chroniques, ces agents, dis-je passent à l'ennemi et deviennent eux-mêmes des foyers d'infection. Ainsi en est-il des amygdales, ainsi en est-il aussi de ces tissus lymphoïdes siégeant dans le cavum et que, pensons-nous, on confond trop souvent avec les végétations adénoïdes.

Les exemples que je viens commenter suffiraient déjà à justifier, pour les cavités naso-buccales, ce titre d'antichambre de la maladie que nous lui avons donné, et, cependant, nous n'avons pas encore parlé de cette atteinte à l'intégrité morpho-fonctionnelle que constitue la carie dentaire, atteinte dont la gravité est faite de l'extrême fréquence de cette lésions et de l'insouciance avec laquelle la tolère la plupart de ses victimes.

La carie dentaire peut-être décelée en effet chez 90% des enfants en âge d'école, et chez 35% d'entre-eux elle frappe la seconde dentition de lésions définitives accusées au point d'entraîner une diminution du coefficient masticatoire représentant lui-même

une impotence fonctionnelle dangereuse pour la santé.

Vous avez bien entendu, et je précise encore: plus du 1/3 des enfants fréquentant nos écoles ont leur denture irrémédiablement abîmée dans des proportions qui en font des mutilés de la mastication.

Puisque nous parlons de statistiques et d'enfance scolaire, signalons en passant qu'un nombre à peu près égal présente des dysmorphoses maxillo-dentaires, accusées au point d'entraîner du déséquilibre fonctionnel.

La carie dentaire n'est pas grave seulement par ses retentissements locaux et régionaux; dès que la lésion destructive, ayant vaincu le tissu de la dent, porte ses ravages dans la zone périodentaire naît alors un second danger, peut-être plus grave encore, et que l'école américaine a stigmatisé dans sa lutte contre l'infection focale, c'est ce microbisme latent, cette infection sourde, insidieuse, dont le point de départ est constitué par ces foyers infectieux, résidus inflammatoires permanents, siégeant dans les tissus environnant les dents, qui ont totalement succombé à la carie. Qu'il y ait dans les théories américaines sur l'infection focale, une exagération manifeste, la chose est certaine, mais, même ramenée à ses justes limites, elle n'en reste pas moins une menace redoutable, parce que la thérapeutique conservatrice est, la plupart du temps, déarmée et incertaine, et que l'on est réduit au recours chirurgical et mutilant.

Le danger est plus grand encore lorsqu'on l'examine du point de vue social et du point de vue psychologique.

Du point de vue psychologique la lutte contre cette affection se heurte aux plus graves difficultés. Nos populations manifestent à l'égard de ce véritable fléau une indifférence et une incompréhension qui ne font qu'en accentuer le caractère dangereux. Vous avouerez en effet que rien n'est plus paradoxal que cette sécurité avec laquelle tant de nos semblables portent en bouche des foyers d'infection, des dents mortes, en ruine, constituant autant de brèches à l'intégrité biologique, alors que ces mêmes personnes s'inquiéteront à juste titre d'ailleurs du moindre malaise survenant dans n'importe quel autre organe.

Un seul symptôme peut troubler momentanément cette sécurité: la douleur; on se préoccupe alors exclusivement de la combattre, en méconnaissant complètement l'avertissement qu'elle constitue et l'on accepte, que dis-je: on sollicite, parfois même on exige des extractions mutilantes alors qu'une thérapeutique conservatrice eût concilié à la fois le désir légitime de soulagement, et le souci de conserver des organes dont on méconnaît le prix.

J'ai laissé soupçonner l'importance sociale du problème lorsque précédemment j'ai fait allusion aux ravages de la carie dans la jeunesse en âge d'école. Il est aisé de s'imaginer l'ampleur qu'ils prennent à l'âge adulte.

Nous avons dit que la carie et les mutilations chirurgicales nécessitées par un recours tardif au praticien entraînent rapidement un amoindrissement considérable du stade initial des fonctions d'assimilation. Or, cet amoindrissement prend une signification particulièrement grave lorsqu'on l'observe au point de vue des diverses activités professionnelles des intéressés, et plus particulièrement encore de leur capacité de travail.

Au cours de cette brève étude d'un sujet extrêmement vaste je ne puis songer à passer en revue toute la pathologie stomatologique, toutes les menaces à l'intégrité pouvant éclore dans la cavité buccale. En me limitant aux deux plus graves d'entre-elles, la dysmorphose et la carie, je ne pense pas avoir affaibli la valeur démonstrative que j'ambitionne de donner à mon exposé.

(à suivre)



THANK GOD FOR VICTORY

Germany defeated at last! Almost incredible, isn't it, after all we've been through! Let us throw our hats in the air — and let us also give thanks to God. Thanks to God for so much — for the ending or the near-ending of the bloodshed in Europe, for the courage and devotion of the boys who did the fighting and the steadfastness of the people at home who sustained them, for our brave allies, for our powers of production and our rich resources in materials, and for the victories in the Pacific that give us reason to expect that peace will come there too before long.

Let us pray God to make us worthy of peace — that He will grant us the wisdom to so conduct ourselves that war will not come again.

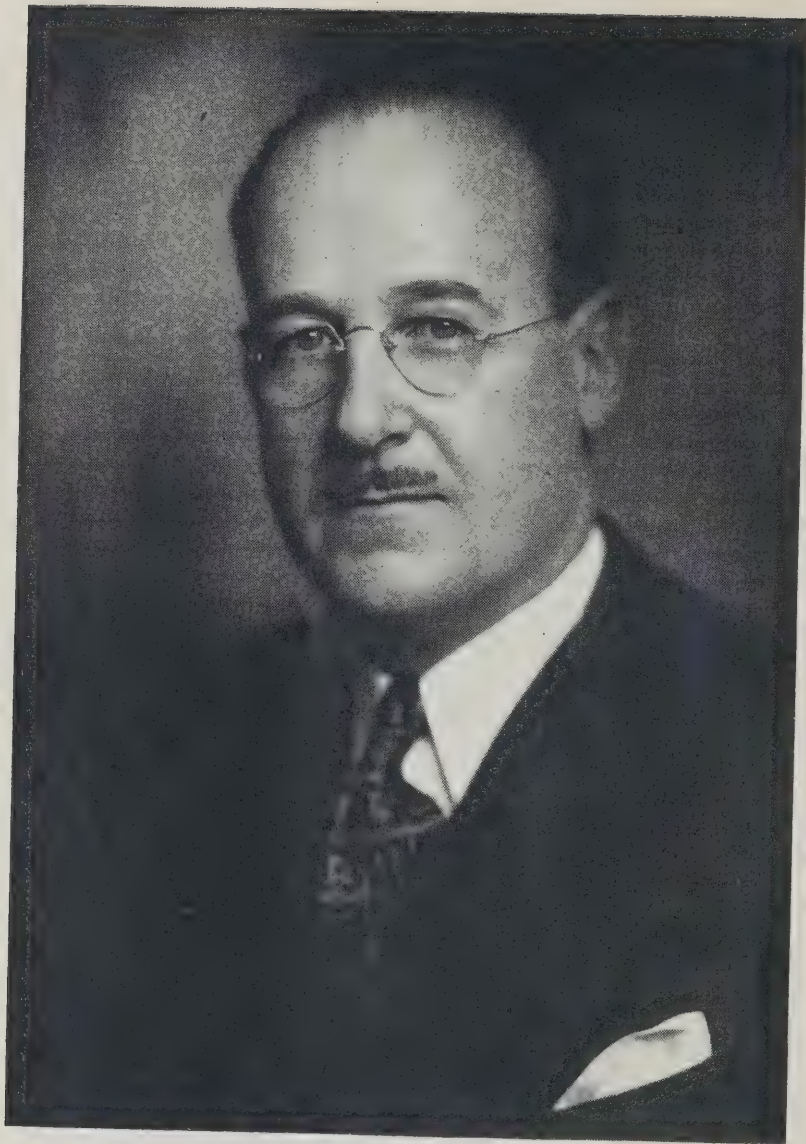
We need wisdom so much — wisdom to realize that with the acknowledged economic interdependence of nations today and with modern methods of communication and transport and, not least, of making war, the world has become too small and vulnerable for us to tolerate the continued existence of unbridled national sovereignties, selfishnesses, jealousies and greeds; that we must set about making it truly one world, and that failure to do this is likely to destroy us; that henceforth we must employ the powers God has given us for man's advancement and not for his despoliation.

God is now giving us another chance to make good in this His world, another chance to show that we can live with our fellow men of all races as brothers, another chance to use His gifts to man constructively instead of destructively.

God gives us the victory today; we may ask ourselves if we truly deserve it, and whether, if we do not make better use of peace than we have in the past, we are likely to be permitted to survive another war.

Editorial by P. M. Richards in Saturday Night, May 5, 1945.





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FLUORINE AND DENTAL CARIES RESEARCH*

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MOTTLED ENAMEL

ONE of the most interesting avenues in dental research at this time is in connection with the possible prophylactic value of fluorine. In order to place this research in its proper perspective it is necessary to review briefly the early work on "Mottled Enamel". This is an interesting story, not only as a piece of dental research, but because it is also, at the same time, one of the most clear cut pieces of work in the whole field of medical research. It is unique that the entire picture of the cause, development and prevention of a pathological condition has been worked out in as short a time as the approximately twenty-five years required for this investigation. There is also no other pathological condition where it is necessary to wait for at least six years before the effect of preventive measures can be determined.

The presence of the whitish or brownish-coloured spots on the enamel to which the name mottled enamel was given, because of its distinctive appearance, was first reported from some limited and scattered geographic areas. More recently attempts have been made to give the condition a more accurate name and the terms Dental Fluorosis and Endemic Fluorosis have

both been suggested. While either of these terms is more accurate than mottled enamel it is doubtful if the earlier and more familiar name will be supplanted. The cause of the condition was not definitely established until 1928, when it was determined that the responsible element was traces of fluorine in the drinking water. This work was done at Bauxite, Arkansas, and was confirmed by the fact that fluorine was found to be present in the drinking water of six other mottled enamel districts and absent in thirty areas where there was no mottling of the enamel. Two men, at about the same time, who were working independently on a diet research problem had noted that rats fed on a diet which contained fluorine developed whitish spots in the enamel. The native population at Oakley, Idaho, showed the condition in all the inhabitants, except one family which obtained its drinking water from a spring some distance outside the town. On this slender data the community voted to spend sufficient money to obtain its drinking water from a new fluorine free source. This is not only the first time in which a community went to this expense to eradicate a dental defect, but is also the first time that a whole community

*Presented at Refresher Course in Children's Dentistry, at Dalhousie University, March 1, 1945.

has resolved itself into a biological research group. The town of Bauxite also changed its water supply, obtaining it from a near by town which was free from the condition. Both these towns were re-examined 8 and 10 years later, respectively, and it was then found that no new cases of mottled enamel had developed in children born six months, or longer, after the change in the water supply.

A survey of the areas where mottled enamel had been reported was made in 1937 and it was found that there were 650. Of these, 345 were located in 25 different states of the U.S., with 298 west of the Mississippi including 94 in Texas. The West Texas Pan-handle is the largest mottled enamel area in the U.S. and the low caries incidence in some parts of that State has received considerable publicity in recent years.

There are a number of criticisms which can be made of many reports on the occurrence and extent of mottled enamel in an area and also of more recent articles which attempt to show a relationship between fluorine in a district and caries incidence. Dean, of the U.S. Public Health Service, has proposed a classification which, if followed, would give much more accurate data both as to the degree, or severity, of the mottling in an area as related to the concentration of fluorine in the drinking water. If the caries incidence in an area was accompanied by the "fluorosis index" of Dean to show the extent of mottling present in the teeth there would be an improvement in the value of the data given.

DECIDUOUS DENTITION

Generally speaking the condition of mottling is one of the permanent, rather than the deciduous dentition. There are a few reports in the literature of the appearance of the condition in the deciduous dentition but when so reported it seems always to be associated with a high concentration of fluorine in the drinking water. The explanation given for the absence of any marked mot-

tling in the deciduous dentition is that the fluorine is filtered out by the maternal placenta.

EFFECTS OF FLUORINE ON CALCIFICATION

The lesions of mottled enamel are produced only during the period of calcification of the teeth so that exposure to fluorine containing drinking water after eruption of the teeth does not result in any observable change in the tooth structure. The lesions are permanent and when once developed are not affected by any subsequent change in the diet. While some of the lighter forms may be removed by the use of gritty polishing agents, or etching by acids, followed in both cases by repolishing of the enamel surface, this is of limited value since the lesion generally seems to extend right through the enamel to the dento-enamel junction. The most likely explanation of the characteristic mottling resulting from ingestion of fluorine is that there is a substitution of the fluorine atom for one of the existing atoms on the space lattice of the molecule of the material from which enamel is built. This is now generally believed to be Apatite, which has the chemical formula: $\text{Ca}_{10}(\text{PO}_4)_6\text{X}_2$, where the X may be either F, Cl, or OH. This substitution alters the internal structure and is shown not only by the altered appearance of the enamel, but possibly also by an increased resistance to caries.

MOTTLED ENAMEL AND CARIES INCIDENCE

Reports have been current in the dental literature for some years that there is a lessened caries incidence in mottled enamel districts. While these observations have been sufficiently numerous to indicate that there is an actual decrease in the caries incidence, at least in those cases where the mottling is not so severe as to disorganize the structure of the enamel, too many of these reports do not give sufficiently accurate data to provide acceptable scientific proof. The incomplete nature of the information as regards the de-

gree of mottling has already been referred to. It would appear that many of the comparative figures quoted in the literature are based on examinations made by one man in a fluorine area and by another in a non-fluorine area. If we are to have data on which to base conclusions it is necessary to eliminate all sources of error that can be removed. Examinations should be carried out in both the fluorine and non-fluorine regions by the same men working as nearly as possible to similar standards and under similar conditions in each area, on groups of the same age and sex and on the largest possible numbers. There can be no reasonable basis for statements that the incidence of caries is two, three, or more times more favourable in fluorine than in non-fluorine districts if the dental examinations have not been properly carried out. Too many conclusions have already been drawn from data so flimsy that it will not stand up to even a cursory scientific analysis. The most that can be said safely, at this time, is that there is reasonably good evidence that the figures for caries incidence seem to be appreciably better in fluorine areas than in the non-fluorine. Some of the statements which have been made in papers at dental conventions, etc., have been reported in the popular press in the extravagant and exaggerated manner which is becoming far too frequent. It would be possible to select many statements of this type from the popular press in recent months, but one will suffice. A financial paper with a deservedly high reputation in its own field has, within the past few weeks, stated: "arguments in favour of adding fluorine to the water supply were taken from a survey of 21 U.S. cities, where it was found that in general the amount of dental caries and the fluorine concentration in the domestic water were in inverse ratio". This, at best, is only in part true and if accepted by the public, as printed, is not only inaccurate but because of the toxic results which can follow fluorine in-

gestion could prove very dangerous. One observer has reported that in three districts in Africa in which the drinking water contained fluorine the caries incidence was:

	Fluorine in the Water	Caries Incidence
Upington . . .	0.38 ppm	79%
Kenhardt . . .	6.80 "	24%
Pofadder . . .	2.46 "	17%

He explains the higher incidence for Kenhardt over Pofadder by stating that the mottling was so severe as to interfere with the structure of the teeth to such an extent that they were structurally less resistant to caries. Other writers have also noted that if the mottling is severe the teeth become more liable to, rather than more resistant to, caries.

Considerable publicity has been given to the low caries figures for Deal Smith county, Texas. The drinking water contains 2.2-2.7 ppm (parts per million) of fluorine and 45 ppm of calcium. The low caries figures for this region have been advanced as proof of the favourable action of fluorine and while it may be true that much of this favourable picture is due to fluorine action it is also possible that other factors may play a part. There have recently been some interesting and suggestive figures presented which were based on dental examinations of large numbers of school children and showed an apparent inverse relationship between caries and sunshine—the more hours of sunlight per year, the smaller the caries incidence. Then, again, the soil of this county and in consequence the vegetables grown on it have an unusually high content of both calcium and phosphorous.

Dean, of the U.S. Public Health Service, has made a number of contributions to the fluorine literature and his figures for relative caries incidence have been rather widely quoted. He has made the general statement that caries incidence in non-fluorine areas is about 2.5-3 times higher than in fluorine areas. Where only the four upper incisors, which are the teeth most

thoroughly bathed by the fluorine containing drinking water, are considered, the difference was increased to 16 times. This particular observation would seem to provide a strong argument for the school of thought which advocates the prophylactic value of the post-eruptive, or local, use of fluorine. The advocates for the addition of fluorine to the community drinking water may be considered as interested in the pre-eruptive, or systemic, value of fluorine. Dean has provided many comparative figures and the following examples have been taken:

Children 12-14 years with caries free permanent teeth		
Galesburg Ill.	1.8 ppm	36.2%
Monmouth	1.7 "	36.4%
Macomb	0.2 "	14.3%
Quincy	0.2 "	4.1%

Children without caries, age not given		
Elmhurst	1.8 "	27.3%
Maywood	1.2 "	28.1%
Aurora	1.2 "	25.0%
Joliet	1.3 "	18.0%
Elgin	0.5 "	10.8%
Evanston	0.0 "	3.8%
Oak Park	0.0 "	2.9%
Waukegan	0.0 "	2.6%

These figures are definitely interesting and provide the argument for the decision recently taken by some communities to add approximately 1 ppm of fluorine to the community drinking water.

FLUORINE IN THE PREVENTION OF CARIES

If we are prepared to assume that fluorine is of value in decreasing caries and sufficient work has been done already to make it appear quite probable that fluorine has a favourable influence on the incidence of caries then we should be interested in: 1. What explanation can be advanced for the method by which it gives this protection? 2. In what way can the fluorine be used so as to give the maximum protection with the minimum danger to the organism as a whole?

A number of explanations have been offered for the way in which fluorine acts to prevent caries. One of the early theories was that the action of fluorine during the period of calcification resulted in the production of teeth with harder enamel. There does not seem to be any proof that this is so but it is possible that the alteration of structure as expressed by the mottled appearance of the tooth has resulted in making the enamel rod structure sufficiently irregular to impede the passage of bacteria into the enamel. It has been shown that bacteria tend to act in the direction of the rods, rather than across them. Therefore any agency which tends to disrupt the regular arrangement of the rods may increase the resistance to bacterial action.

Bibby states that fluorine does not have any marked bactericidal properties and that the amount of this action varies according to the fluoride compound which is used and the type of organism. He has found that low concentrations of fluorine interfere with the fermentation of carbohydrates. The powerful attraction between fluorine and calcium could result in the adsorption of fluorine on the surface of the tooth. It is possible that this adsorbed fluorine, by interfering with the fermentation of carbohydrate food debris on the surface of the tooth, and so decreasing the acid production lessen the tendency to caries.

Gottlieb has lately advanced a new theory for the protective action of fluorine. He thinks that where the child is living in a fluorine area during the period of calcification of the teeth fluorine is present in the enamel matrix. The marked affinity of this fluorine for calcium results in the production of a hypercalcified cap, or coating, of enamel which increases the resistance to caries. This early protection may be lost after eruption and the tooth lose this protection from caries unless its place is taken by another form after eruption. The carious process is due to the invasion of the en-

amel by microorganisms. If these channels are blocked by such a material as calcium fluoride, which is practically insoluble, the entrance of the microorganisms into the tooth substance is prevented. The fluorine on the tooth surface may be continuously renewed from the drinking water, fluorine containing mouth washes, etc. This unites with calcium from the saliva to form calcium fluoride. This protection is slowly being lost by such natural forces as the saliva and must be continuously renewed if the tooth is to continue to have this protection. Where caries has actually developed the presence of the disorganized dental material in the base of the cavity would prevent this protective action taking place.

TOXIC ACTION OF FLUORINE

Before considering the possible methods of using fluorine it is wise to consider the possible dangers from this substance. While the mottling of the enamel is the most obvious result of the ingestion of fluorine other effects are produced in the body. Some of the toxic effects have been known for quite a while, but it is only in late years that much attention has been given to the changes which may follow ingestion of small amounts of fluorine over long periods. Much of this investigation is still in its early stages and considerably more work will have to be done before we have any accurate picture of the possible ill effects of the continuous ingestion of fluorine. The available literature on the systemic effects and toxic limits of fluorine ingestion are at best rather indefinite. Sollman gives the fatal dose as 0.5 grams per kilogram of body weight. Roholm, of Copenhagen, has reported 112 cases of acute fluorine poisoning, of which 60 were fatal. We are not particularly concerned with the size of the dose which could result in early death, since no suggested dental use of fluorine calls for the use of sufficiently large amounts to make this danger a very real one. The danger with which we are faced is the problem

of the entrance of small amounts of fluorine into the body fluids over extended periods. This intake may result from the ingestion of fluorine with the drinking water, either because it is naturally present in the community water supply or has been deliberately added. It could also result from the incorrect use of fluorine by the dentist, or by the patient in mouth washes, tooth pastes, chewing gum, etc. The systemic danger of fluorine is that it is a toxic substance which steadily accumulates in the body and since most of it is fixed in an insoluble compound, such as calcium fluoride, it is unlikely that much of it is excreted. It would seem only logical then that we should proceed very cautiously in any type of treatment which may result in the accumulation of fluorine in the body. While it has been realized for some years that fluorine was probably fixed in the skeletal bones in much the same way as in the teeth, because of the similarity in composition of these two tissues, it was not until the publication of such articles as that by Linsman within the past two years that active attention was directed to the danger of the accumulation of fluoride salts in the bones. This work has not as yet received, in the dental literature, the attention which it merits. While the accumulation of fluorine in the structure of the tooth ceases with mastication, the active blood circulation found in bones results in the steady accumulation of this toxic material in the skeleton. This becomes more serious when it is realized that the metabolic processes are most active in those bones which are concerned in the manufacture of red blood cells. The effect of the addition of fluorine to these bones is that there is a continuing osteosclerosis which steadily encroaches upon those tissues which are concerned in the rejuvenation of the red cells of the blood. If the ingestion is continued it will go on to the point where the manufacture of red cells is seriously interfered with and an intractable anaemia results from which

the patient cannot recover. While it is true that this has not as yet been demonstrated in cases where the patient is receiving less than 3 ppm of fluorine in his drinking water and then for long periods, still it does point to our increasing knowledge of the dangers to the system, of this substance. The ability of Gottlieb as a dental histologist and pathologist has been well recognized. His recent warning of the possible danger of fluorine first causing loosening and later, early loss of the teeth is one which requires serious study. He points out that a treatment which may be good for the clinical crown of the tooth may be distinctly bad for the clinical root. The deposit of calcium fluoride which hardens and protects the clinical crown of the tooth may also cause such hardening of the surface of the clinical root of the tooth that the attachment of the pericemental fibres into the surface of the cementum may be seriously interfered with and result in early loss of the teeth. It would be rather a sad commentary on public health efforts if in the attempt to lessen the incidence of caries we did so at the price of setting up a condition which could result in early loss of the teeth. We have reasonably good methods for treating caries, but there is little we can do if the surface of the cementum is such that the pericemental fibres cannot secure proper attachment.

PROPHYLACTIC USE OF FLUORINE

This has followed two main plans: the systemic and the local. The advocates of the systemic method recommend the addition of approximately 1 ppm of fluorine to the drinking water. The marked differences of opinion on this question are well shown by the fact that while such communities as Brantford, Ont., and Grand Rapids, Mich., have either started to add or plan shortly to add fluorine to the communal drinking water others are spending large sums of money to obtain fluorine free sources of drinking water, or, where this is not pos-

sible, so treat the water that the fluorine will be removed. While there is room for doubt as to the validity of some of the data presented as to the better caries picture in areas where the drinking water contains about 1 ppm of fluorine as compared to the fluorine-free areas still the claim that children of the non-fluorine area have at least twice as much caries does not seem unreasonable. A public health measure which will reduce the incidence of any disease by one-half is certainly worthy of serious consideration. It would seem quite reasonable to hope that the addition of about 1 ppm of fluorine to the water would cut the caries rate perhaps in half and that without much danger of causing mottling of the enamel since the incidence of this condition in areas containing about 1 ppm of fluorine is not more than 1-3% of the inhabitants and then only in a mild and not disfiguring form. The uncertainties present in this form of treatment at this time would seem to be such that any community which is considering the addition of fluorine to the water should carefully balance the possible dangers against the probable dental benefits. It will require at least six years before it will be possible to make any study of the dental value of the treatment and probably at least ten years before any reasonably valuable caries data can be obtained. It may be that a further twenty years' study will be necessary to determine with reasonable accuracy whether the gains offset the dangers, or vice versa. This type of water treatment means that no adequate controls can be taken of the ingestion of a toxic material which accumulates in the system and cannot be removed by any known form of treatment. There are some grounds for the belief that the protection from caries in fluorine areas is due more to the flow of this water over the teeth after eruption than to any resistance built into the tooth during calcification. The method of administration is unscientific and quite different from the addition of chlorine

to the water. Chlorine is added as a protection against certain forms of bacteria and no matter how much or how little water is taken during the 24^h hours the anti-bacterial relationship of the chlorine is a constant one. It is quite a different matter with fluorine where the amount accumulated in the system will vary with the daily intake of drinking water. This is subject to wide variations not only because of the difference in individual habits but also as a result of the greater fluid intake in hotter and drier localities. It is possible that some people may receive fluorine from other sources so that they receive amounts in excess of that obtained from the drinking water.

The local prophylactic use of fluorine, at this stage of our knowledge, seems to be much the wiser form of attack in that it is subject to reasonably accurate control and does not involve any systemic dangers. It is true that fluorine so used can have no effect on the calcification of the tooth, but if it should be established that the addition of fluorine to the diet is advisable at this time there are ways in which this could be done and adequately controlled amounts used. Broderick has suggested the administration of fluorine by mouth. Two tablets, each containing 1/100 grain of silico-fluoride, per day would be about equivalent to 2 pints of drinking water with a fluorine content of 0.7 ppm. The local methods of use advocated so far seem to consist in the use of a mouth wash, as advocated by Atkins, and the direct application of a solution of a fluoride salt to the teeth as suggested by Bibby and others.

The Atkins method consists in the preparation of a stock solution made from 1 gram of sodium fluoride to 4 litres of tap water. This is sweetened with saccharine, flavoured and coloured. He does not suggest the amount of sweetening or flavouring to be used. It would seem wise to adjust this somewhat, depending on the age of the child. If made too attractive the young child is likely to swallow the

mouth wash rather than spit it out as he should. The patient uses the mouth wash in the proportion of one teaspoonful to a half glass of water. It is worked vigorously around and between the teeth and may also be used on the brush. This gives a solution of about 4.5 ppm. of fluorine and should not be swallowed.

Bibby and others have suggested the use of such applications to the teeth as aqueous solutions of sodium fluoride, 0.001%, or potassium fluoride, 0.0005%. While there are individual differences in the techniques used by different workers the following method gives the general procedure:

1. Teeth to be treated are first thoroughly cleansed with pumice and hydrogen peroxide.

2. Teeth of one quadrant of the mouth isolated by cotton rolls and thoroughly dried, taking special care to remove all moisture from occlusal and interproximal surfaces.

3. Surfaces of the teeth swabbed with cotton pellets saturated with the fluoride solution. This is pumped into the occlusal fissures of molars and into interproximal spaces until all parts of the teeth are thoroughly bathed. It is allowed to remain in position on the teeth for 8-10 minutes. The air syringe used to dry the solution in position.

4. Cotton rolls removed and care taken that the patient thoroughly rinse the mouth several times before swallowing.

5. Remaining quadrants treated in the same way. These treatments are given every four months.

One worker reports that in a group of 46 children, approximately 5 years old, 27 were treated and the others used as controls. The treated group developed 3.09 new surface involvements in a year, while the untreated developed 6.04. Bibby carried out a more scientific test in that he treated two quadrants in the mouth of each of his patients and left the other two quadrants untreated, as controls. He found that at the end of one year 173 new cavities had developed in the

treated quadrants as compared with 239 in the untreated control quadrants. At the end of the second year it was 83 as compared with 124 in the control quadrants. Thus it will be noted that the decreased caries incidence is roughly 25% for half of the mouth both at the end of the first and second years. This gives a theoretical reduction in the caries incidence of 50% for the whole mouth, so that the results of both workers are about the same.

Smith has found that if toxic doses of sodium fluoride were buffered by equivalent amounts of calcium carbonate and administered to guinea pigs the animals apparently did not suffer any ill effects. He suggests that calcium carbonate might be combined with sodium fluoride to counter any possible ill effects which might result from swallowing fluorine salts during oral treatments. This work is still too recent to know whether (A) the danger of ill effects from swallowing fluorine salts could be prevented in this way in humans; (B) fluorine salts buffered in this way would have the same effective action in preventing caries. If this effect is due first to the adsorption of fluorine on the tooth, then to the formation of the insoluble calcium fluoride coating on the tooth, it is possible that the extra-oral combination of these salts might not give as effective results.

Weaver, in a late copy of the B.D.J., reports on investigations carried out in the twin communities of North and South Shields in England. He found that in North Shields, where the domestic water supply contains less than 0.25 ppm of fluorine the DMF (decayed, missing, filled) figure for the permanent teeth of children up to 12 years of age was 4.3. In South Shields, where the water contains 1.4 ppm of fluorine the corresponding figure was 2.4, which is of much the same order as reported by others working in the U.S. Weaver's work is of interest in that he carried out investigations along two other lines which do not seem to have been carried out before. Most

of the observations on the comparative figures for caries have been done on school children. This is quite understandable when one considers the opportunity for examining large groups of children in school clinics. He was interested to determine whether this favourable caries figure carries on into later life. It should not be forgotten that other factors enter into the picture as the patient grows older, such as the loss of teeth from periodontal conditions and also in the case of full extractions for dentures where some sound, as well as diseased, teeth may be extracted. These tend to increase the M factor of the DMF figure over that which is due to caries alone, as in children. He is therefore justifiably cautious in his interpretation of his findings; however, he does think that there are grounds for considering that fluorine is a caries-postponing rather than a caries-preventing agent. He found that at age 20 DMF figure for the fluorine-free area was about the same as for age 25 in the fluorine area, that is the inhabitants of the fluorine area had about a 5-year advantage over the fluorine-free area. When he examined groups of age 30 he found that the DMF figure for the two areas was substantially the same and that those living in the fluorine area had lost all their early advantage. He also tried to find out the caries experience of children who were born in fluorine free areas and then moved into a fluorine area at any time previous to the eruption of the first permanent molar. While he thinks that the numbers are too small to give a basis for definite conclusions he did find indications that the children who had moved into the fluorine area had just as good a caries record, so far as the first permanent molar was concerned, as those who were born in the area. An investigation of this type is only possible under such conditions as those in England during the past few years where there have been large shifts of population and it may not be possible to duplicate

this work elsewhere on a large group of children.

CONCLUSIONS

It will be noted that both the ingestion of fluorine in the drinking water and its use directly in the mouth seem to give worth while decreases in caries incidence. While the claims made for treatment of the teeth in the mouth are perhaps more modest, still there would seem to be strong arguments for this controlled method of use. It should not be overlooked that this whole field of investigation is still very new and much more accurate data will be necessary before it will be possible to assess more fully the advantages and dangers of the various forms of treatment.

I am surprised that we have not already had a barrage of claims by the manufacturer of dentifrices as to the

amazing powers of X or Y mouth wash, dentifrice, etc., in preventing dental caries. Some members of this group have never before been slow to rush in with glowing claims on the merits of their product when any earlier real, or imagined, progress has been made in dental prophylaxis. It is perhaps too much to expect that such claims will be much longer delayed and it is hoped that adequate steps will be taken not only to prevent the exploitation of the public but also to protect them from an agent which could be quite harmful if carelessly handled.

(This article is too lengthy for a full bibliography of the many articles consulted in the preparation of this report. Acknowledgment is made to the fine publication of "Fluorine and Dental Health," published by the American Association for the Advancement of Science, in 1942 for much of the background material, particularly on Mottled Enamel. Where recent reports and researches have been used effort has been made to credit them accurately).

DENTISTRY IN RUSSIA

by C. C. HARRISON, Dental Student, University of Alberta

A full state medical service has been in operation in Russia since 1918. At the head of the vast and intricate organization which is responsible for the health of 170 million people is the federal health agency, the All-Union People's Commissariat of Public Health. It establishes health policies, directs and co-ordinates the work of the health commissariats of the constituent republics, and attends to health problems that concern the Union as a whole. It controls all health activities, preventive, diagnostic and curative. Besides this, it also produces the personnel, equipment and knowledge required for its work. The actual administration of health services is in control of the Soviets, which are units corresponding to our city and municipal councils. These Soviets have con-

trol over hospitals and other health units within the area they govern.

There are four characteristics of the Soviet health system which are particularly striking:

(1) Health services are free and therefore available to all.

(2) The prevention rather than the treatment of disease is in the foreground of all health activities.

(3) All health activities are directed by central bodies, the People's Commissariats of Health.

(4) Since there is central direction, health can be planned on a large scale.

Although the commissariats of health have great power, the administration of health is not brought about in a dictatorial way, but rather most democratically. Special committees of the Medical Workers' Union, which in-

cludes doctors, dentists and pharmacists, are in constant touch with Commissariats and no decision concerning medical workers is taken without consultation. (Thus the administration units and the professional men work very closely together).

On the other hand, the factories and the collective farms all have their own health committees which co-operate very closely with the health agencies.

Each Soviet or unit has its own health agencies which consist of dispensaries, polyclinics and hospitals. Polyclinics are institutions in which specialists in every line of medical science are grouped together. It is in these polyclinics that the dentist has his place. Dentistry plays an important part in Soviet medicine, and there is no medical centre which does not have its dental department. These polyclinics are extremely well equipped and staffed. The medical workers are on duty in shifts in order that the factory workers may receive attention during the time they have off from their work.

Another method by which health services are administered is through what is known as factory medicine. The factory workers are the most valuable asset of the Soviet and hence receive the best of medical and dental care. For factory workers dental care is not only given free but is compulsory. The same is true in Russian schools; just as immunization against infectious disease is compulsory, so is dental treatment.

It is quite reasonable to suspect that these polyclinics could not function well in the rural areas. But here, each unit has its medical centre consisting of a doctor, a dentist, and two or three nurses. To provide health services, especially dental, for the more remote areas mobile clinics are operated. Of course, treatment at all such clinics, medical centres, polyclinics and hospitals is free.

This ambitious system of health service is financed in major part through a system of health insurance. For each

employee which an employer has, he pays so much into the health insurance fund, the amount depending upon the employee's wage and the hazards of his job. This amount is added to the cost of production. In rural areas the money necessary for providing health services is forthcoming from the state, from various sources.

The position of the doctor and the dentist is similar to that of an industrial engineer. All three are state officials. The doctors and dentists receive a salary from the state which is influenced by the amount of experience they have had and the importance of their position. They are members of the Medical Workers Union as mentioned before, and this union is always consulted before any decisions regarding them are made.

The doctors and dentists receive very good incomes with at least two weeks holiday a year. They may retire at the age of sixty-five, and will receive a pension equal to about two-thirds of their original salary. The dentists are encouraged to avail themselves of post-graduate courses offered at dental schools, and while there receive their usual salary.

Although there is marked shortage of dentists in Russia, the state is rapidly attempting to overcome this. In the meantime, while this shortage exists, to prevent hurried or improper work from being done the dentist is allowed to see only a certain number of (10-12) patients each day and this number is considerably lower (3) for the inexperienced man. This is evidence that an honest attempt to maintain a certain standard of work is being made.

A brief history of dentistry in Russia shows that it has risen to its present recognized position in much the same way as did dentistry elsewhere. Before 1881, when the first dental school was established, dentists were trained as craftsmen by serving a three-year apprenticeship in a dentist's office. By 1891 two categories of dentists were recognized: the dental surgeon, who

was a graduate of a dental school, and the dental technician, who was trained through apprenticeship. After the revolution there was a tendency to make dentistry a medical specialty by requiring students to graduate from medical school and then attend dental courses.

In 1929, this system was changed and today the dentists are trained in special dental schools, known as stomatological institutes. The Stomatological Institute of Karkov is an example. It offers a five-year course of studies, has a student body of 315 and a faculty of 70. Also, today the course of studies is uniform for all twelve dental schools of the Soviet Union.

Today there is still a second category of dentists recognized in Russia. These men must have the same preliminary education as do university entrants. They receive a technical training in routine dentistry, like that leading to our D.D.S. degree. They do not receive a degree. After three years' service in an outlying district, they may return to a university centre for scientific training. Here they help in the clinic part of the time and in 3½-4 years they may complete the work for a medical degree.

Dean Alfred Owre of the School of Dental and Oral Surgery of Columbia University said following a visit to the

dental schools and polyclinics of Odessa, Kiev, Moscow and Leningrad: "The achievements to date (1932), in spite of tremendous handicaps, are remarkable. Several men I talked with, all M.D.'s, had carried on large scale experiments in fundamental phases of dental practice. I was astonished at the ingenuity shown in overcoming technical difficulties: for example, the employment of chrome and rustless steel for prosthetic work in place of gold and platinum."

Again he says: "In one well-organized laboratory at Leningrad I saw records to show a turn-out of 35,000 dentures monthly, and 7,000 bridges." He states further: "The dentistry, except for fancy dentures and other work chosen in place of simpler types which would serve, is free. All dental education is also free."

Through the health committees, which are present in all factories and collective farms, the state is attempting to educate the people to the importance of medical and dental care. Because the state is aware that, without the co-operation of the people, any plans for health services are doomed to failure. It would seem that their educational program is very successful as evidenced by the way that the people are taking advantage of the services provided to care for them.

Schoolmaster Abroad

QUESTION:

HOW SHOULD EARLY ACUTE DENTOAIVEOLAR INFECTIONS BE TREATED?

ANSWER:

. . . .

By Bruce B. Cook, D.D.S., M.S., Detroit, Mich., as published in *Journal of Oral Surgery*, April, 1944.

We may think of the tissues involved

in an inflammatory process as passing through a crisis in the battle between the invading bacteria and the resistance mechanisms of the body. As readily in the early phases of acute infection as in any other, the bacteria may gain ascendancy and the infection may spread dangerously out of control. The chief factors in their spread and multiplication are: (1) the low resist-

ance of the patient; (2) the high virulence of the micro-organisms, and (3) the showering of bacteria into the neighbouring region by unwarranted manipulation of acutely inflamed tissue. It is particularly the last factor that often seems to be insufficiently understood, and it is the purpose of this discussion to give thought to those situations which call for special consideration. Those conditions are: (1) acute pericoronal infection; (2) acute pericemental infection, or acute infection of pyorrhetic pockets; (3) acute apical infections, and (4) surgical procedures in the presence of Vincent's infection.

The one procedure most to be censured is the incision of an acutely inflamed pericoronal flap for the purpose of exposing the gum pocket and relaxing the tissue. Incision or any unnecessary manipulation of acutely inflamed tissue is apt to break down Nature's wall of resistance in and about the region, permitting microbes to enter unfortified surrounding tissue where they may multiply and spread unchecked. It is true that certain oral surgeons favour incision of the overhanging ledge of gingival tissue to lay open the pocket, but if this is done at all, it is not to be done in the acute inflammatory stage.

The acute pericemental abscess affords an opportunity for a dentist to follow a conservative course and avoid complications.

Proper early treatment should consist of waiting for satisfactory localization of pus to permit incision and drainage. Frequently, drainage can be effected by gently probing down into the pyorrhea pocket and along the periosteum in the direction of the abscess. The use of intra-oral heat in the form

of hot saline irrigation or rinses is an acceptable procedure, but the use of extra-oral heat in this or any other early acute dentoalveolar infection is contraindicated.

Acute apical abscesses call for careful evaluation of signs and symptoms for selection of the best course of treatment.

Infections involving the upper anterior teeth are in a category by themselves, and one important rule may be given: do not extract an upper incisor or cuspid tooth in the presence of an acute infection. If the presence of pus is suspected, and it appears to be confined within the bone, some drainage and release of pressure may be established by way of the root canal. But it is important in this instance that care should be taken not to disturb the periapical cancellous bone lest the infection spread farther. Sulphonamide therapy may be especially valuable from the outset in these cases of infection in the premaxillary region.

As to the mandibular teeth or the maxillary posterior teeth, it can be said that, in general, early extraction in acute apical infections is advised if there is clinical evidence that the inflammation is confined to bone.

The use of extra-oral heat in the early stages of any of the acute dentoalveolar infections is generally inadvisable because of the predisposition to cellulitis.

The dangers of executing surgical procedures in the presence of acute Vincent's infection cannot be over-emphasized.

When Vincent's infection is present, it should be treated until eliminated before any surgical measures are undertaken in the mouth.

I live in a constant endeavour to fence against the infirmities of ill-health, and other evils of life, by mirth; being firmly persuaded that every time a man smiles — but much more when he laughs — it adds something to his fragment of life. — Sterne, in Medley.

ONTARIO DENTAL ASSOCIATION CONVENTION, ROYAL YORK HOTEL, TORONTO

President, Dr. Fred L. Williamson of Hamilton, at the opening Luncheon said, "This is our Victory Convention." Somehow these words very aptly describe the atmosphere of the meeting and the preparations for it. Many difficulties were encountered in planning the program and in completing arrangements, due to war time restrictions of various kinds. In spite of these, the Board of Governors found no problem insurmountable. The arrival of V-E Day rewarded them for their tenacity of purpose and optimism and a great convention was the result. The usual reception and musicale was arranged for Sunday evening under the direction of Dr. Alvin Hord and his committee. This feature is always very enjoyable as it provides an opportunity to renew old friendships and make new ones. Some 450 attended the function to hear good music, enjoy a social evening, and the hospitality of a cup of tea and a piece of cake.

Early Monday morning, the Dental Public Health Council held a breakfast meeting with 53 members in attendance. Dr. R. P. Lowery, Vice-President of the council conducted the meeting owing to the much-lamented recent death of President, Dr. J. E. Middleton. The feature of the meeting was a forum discussion on "Dental Care of the Pre-school Child". Those who took part in the discussion were: Dr. J. J. Craig, Peterborough; Dr. S. J. Phillips, Oshawa; Dr. Rex Sykes, London; Dr. Vin Keenan, Sudbury; Dr. A. E. Higgins, Toronto. Dean Mason, Dr. S. A. MacGregor and Dr. Harvey W. Reid also contributed to the discussion which proved very interesting and indicated well thought out preparation of the subject material. It was suggested that council members undertake the organization of a Dental Public Health Committee in their own local dental society to promote dental health education in their community and that a full day be set apart for the council meeting next year.

Dr. Vin Keenan was elected Vice-President of the Council for 1945-46. The president and secretary will automatically be the chairman and secretary of the Dental Public Health Committee of the Ontario Dental Association, and will be appointed when this committee reorganizes in June. Members of the Dental Public Health Committee are: Dr.'s S. A. MacGregor, Harold A. Swales, J. C. Devitt, R. R. Butler, T. R. Marshall and Major Hugh McLaren. This committee is the executive body of the council.

Another feature of the Monday morning program was the table clinics and demonstrations. These were under the direction of Dr. Harold A. Swales, President of the Toronto Academy of Dentistry. There were 58 individual presentations provided by Dentists, representatives from the Dental Nurses' Alumnae, Dental Nurses and Assistants Association, the Dental Manufacturers and Trades Association and the Dental Technicians Association. The large Ball Room of the Hotel was overcrowded with interested spectators.

The opening ceremonies were held at noon on Monday when all were assembled for luncheon. Squadron Leader, Rev. Noble Hatton led in a brief but impressive commemorative service in keeping with the spirit of the meeting. Following lunch President Williamson spoke briefly extending a welcome to members and guests. He pointed out that, while he liked to think this was a Victory Convention, we should not relax our efforts until total victory over Japan is accomplished. He emphasized the challenge to our profession to find ways and means of lessening the prevalence of dental disease through research and preventive measures. "There is a tremendous need for dental care among civilians at this time," he said.

Dr. E. W. Paul, a past president of the Association, and for many years a leader and teacher in the profession, was elected an

honourary life member. Dr. Oran A. Oliver of Nashville, Tennessee was also accorded this honour. Dr. Oliver enjoys the distinction of being the first non-Canadian to be tendered this recognition.

In the general sessions an innovation was introduced. The presidents of the various larger dental societies in Ontario were invited to preside in turn. Those who participated were:—Dr. Val, Tario, newly elected Vice-President of the Ontario Dental Association; Dr. Alvin Cameron, President Eastern Ontario Dental Association; Dr. W. W. Baxter, President, Hamilton Dental Association; Dr. H. G. Marshall, President, London Dental Society; and Dr. Tom Provost, President, Ottawa Dental Society. The sponsor of this idea, our newly elected president, Dr. Frank Martin, is to be commended for this unifying influence among our professional groups in this province.

A few notes made in general sessions might be informative:— Dr. Donald G. Wallace, Secretary of the Council on Dental Therapeutics of the American Dental Association is doing good work. Activities of this council are conducive to promoting good dental products for public consumption and truthful advertising. The Association's stamp of approval is withheld unless manufacturers conform to the Council's standards.

Dr. Philip Greey, University of Toronto, gave a fine presentation on penicillin. After reviewing modern therapeutic uses of the drug in general medicine he suggested its possibilities in dentistry. Administered as a pastille with an agar base, penicillin would slowly diffuse into the saliva creating a concentration of one unit per c. c. of saliva and this could be maintained by placing a fresh pastille under the cheek fold every 4 hours. This treatment is very effective for ulcerative gingivitis and other surface infections constantly bathed with saliva. It is not effective however in deep periodontal disease because the saliva does not carry the drug into the pockets.

Brigadier Frank M. Lott reported on activities of the Canadian Dental Corps and indicated that a policy for demobilizing some members of the corps was being considered. Generally speaking "First in would be first out" and that he expected all men over fifty would be gradually released.

Dr. Don. W. Gullett, Secretary of the Canadian Dental Association discussed rehabilitation of the men released from the Corps, dental services to discharged military personnel and the status of Health Insurance in Canada. In respect to the status of Health Insurance, he stated that the minister of National Health in conference a few weeks ago indicated the position of the Federal Government as follows:

- (1) That no form of state medicine would be introduced by the present government but that health insurance would definitely be enacted.
- (2) That the present relationship between patient and dentist would be maintained under the proposed legislation.
- (3) That the object of the government was simply to make more money available for people to purchase more health services.
- (4) That health insurance legislation would begin to operate at the earliest on July 1, 1946, and probably at the latest on July 1, 1947.

Dr. Gullett further pointed out that Federal Health legislation would be a subject for discussion at a Dominion-Provincial conference to be held soon after the present elections.

He further made it very plain that he believed that "Education of the public in dental health is vital, and a large scale educational program must be introduced initially in order to make any plan of health insurance with dental service benefits successful". Further, he said, "Any plan for dental treatment services is economically unsound which does not provide an educational program to teach the patient or those responsible for the patient, to care for their own mouths and make use of the treatment provided at regular intervals."

In respect to "Dental Services to Discharged Personnel" he indicated that satisfactory progress was being made with the department of Veteran's Affairs and that he believed routine procedure would soon be simplified and satisfactory.

In regard to rehabilitation of our dental colleagues discharged from the Dental Corps, Dr. Gullett asked for a friendly spirit of helpful co-operation on the part of every

dentist toward his colleagues who try to establish themselves in private practice. These men gave up everything to serve a cause; they are worthy of a friendly reception in any community.

Dr. Oran A. Oliver, of Nashville, Tennessee gave a fine presentation both in illustrated clinic and by lecture pointing out the dentist's responsibility to his child-patient in respect to Orthodontics. Intercept malocclusion early and give nature a chance to develop normal arches. Maintenance of good dental health is a most important factor. Dr. Eugene North of Buffalo, gave a fine paper and lecture clinic on dental care of the child patient from an operative point of view. His practical presentation merited the many compliments heard in the little groups assembled here and there.

Dr. Massler from the University of Illinois gave a fine presentation dealing with fluorides in relation to dental caries. He indicated that the general effect of fluoride administration was not known. There was much evidence to show that one part per million of fluorine in water would inhibit caries but he was not too positive. The whole thing is still in an experimental stage. There is evidence that 2% sodium fluoride applied to the "dry" tooth, for 4 applications, preferably 8, would prevent new caries for a time but he felt there was no virtue in putting salts of fluorine in tooth pastes and mouth washes.

The program of group clinics for two mornings was highly instructive and attracted excellent patronage. Those who contributed in this connection, in addition to the essayists in the general sessions, were:- Dr. Frank Bowyer, Knoxville, Tennessee; Dr. Boyd Tarpley, Birmingham, Ala.; Dr. Theodore Messerman, Cleveland; Ford W. Stevens, Major D.C. Army of the U.S.; Dr. J.J. Posner, New York; Dr. L.J. Fenech and Dr. L.L. Crowley, Windsor; Lt. Col. Gibson, Major Linghorn and Major McIntosh of the C.D.C.; Dr. C.H. Moses, Hamilton; and Dr.'s I.H. Ante, F.L. Cole, R.J. Godfrey, S.A. MacGregor. G.W. Johnston, C.H.M. Williams, George Morgan, S. Copeland and W.S. Leslie of Toronto.

The Dental Public Health Committee sponsored a luncheon meeting with Group Captain

F.F. Tisdale as speaker. Dr. S.A. MacGregor acting as chairman made an eloquent challenge to his assembled colleagues to give greater interest in dental care to children thus avoiding the ravaging results of neglected dental disease so much in evidence in adult life. He introduced Group Captain Tisdale as a scientist, an authority on nutrition and "Dentistry's best friend in Medicine". The speaker rising to give his address was accorded a warm welcome. He delighted his 600 hearers with his discussion of the "Clinical manifestations of malnutrition" which was illustrated by coloured photographic slides secured in a recent nutritional survey made in Newfoundland. Concluding his address Group Captain Tisdale announced that a complete and modern dental department will be included in the new Sick Children's Hospital presently being erected.

In the lighter vein, the usual president's reception and dance was an enjoyable party. Some 160 couples attended the function so perfectly arranged by Mrs. John Duff and her committee of ladies. Dr. and Mrs. Williamson accompanied by Dr. and Mrs. Frank Martin received the guests as they entered the ballroom. Bouquets of flowers were presented to Mrs. Williamson, Mrs. Duff, Mrs. E. W. Paul and Mrs. W. B. Amy as a token of esteem and in appreciation for service rendered.

One could not conclude any story of this convention without some mention of the exhibits. These included the Faculty of Dentistry, the Dental Trades and Manufacturers Association, the Dental Technicians, and the Dental Public Health Committee together with the motion pictures supplied by Dr. Louis Fenech of Windsor and Dr. S. Copeland of Toronto. The displays in the exhibit hall perhaps excelled any previous occasion; they attracted great attention and favourable comment. The financial contribution, too, as well as the generous good will tendered by Commercial organizations is deserving of a sincere, thank you.

So the Victory Convention is over. Those who came, could scarcely go away disappointed. It was a good meeting because so many were interested in it and took part. Isn't it always so—you get more when you put in more. So long until next year.

T. R. M.

ANNOUNCEMENTS

There will be a Dominion Dental Council examination held in Halifax, July 30 to August 4 inclusive. Class "D" fees should be in the Secretary's office not later than June 15, Class "A" not later than July 1.

There will be a Dominion Dental Council examination held in Edmonton, from September 17 to 22. Class "D" fees should be in the Secretary's office not later than August 1, Class "A" fees not later than August 15.

A. J. BRETT, *Secretary*, Regina, Saskatchewan.

Nova Scotia Dental Association

The 55th Annual Convention of this Association will be held at the Cornwallis Inn, Kentville, Nova Scotia, on August 2, 3, and 4, 1945.

ALLEN A. DUNLOP, *Secretary*.

New Brunswick Dental Society

The Annual Convention of this Association will be held in the Admiral Beatty Hotel, Saint John, September 17-18.

Eastern Ontario Dental Association

The Annual Convention of this Association will be held in Ottawa, September 23-25.

L. R. BRADEN, *Secretary*.

The 21st Annual Fall Clinic

Plans and preparations for the twenty-first (coming of age) Fall Clinic which will be held on October 24-26 under the sponsorship of the Montreal Dental Club are rapidly nearing completion, and all indications are that it will more than live up to the expectations as implied by its title.

The program will include limited attendance clinics, essays, topic discussions, table clinics, motion pictures, an information please session, and a progressive clinic by the Central Nebraska Denture Study Club.

In addition to the above organization, Dr. G. A. Coleman, Philadelphia; Dr. F. Messerman, Cleveland; Dr. Philip Jay of the University of Michigan, and many others will be participating.

All available space in the enlarged exhibit hall has been reserved which assures many interesting hours for those attending.

The Preliminary Program with complete outline of the meeting will be available for distribution about August first.

Kindly communicate with the undersigned if your name is not on our mailing list.

MAURICE L. DONIGAN, D.D.S., *Chairman*,
1414 Drummond Street, Montreal 25, Canada.

The Forum

NUTRITION AND CARIES CONTROL

by W. H. STURM in Jour. Michigan State D. Soc.

Impressions Received from the Nutritional Conference Sponsored by the Research Laboratory of the Children's Fund of Michigan

A WHOLE day was given over on November third to lectures and movies depicting the newer developments in Nutrition and Public Health. Foremost research workers gave some indication of what the post-war era may expect in the way of improving the nutrition of the whole population.

Repeated surveys disclose that fifty per cent of our population receive an inadequate diet. California, state of sunshine and oranges, is no exception. There are very few cases of actual scurvy, rickets, pellagra, beri beri, but there are millions of subnormal physical states as a result of poor nutrition. A refinement in technique now allows the trained worker to make a diagnosis of subnormal nutrition from two drops of blood drawn from the finger.

The masses have been educated to accept immunization during the last forty years. Now we are on the threshold of new progress. The realization of that goal depends upon mass education in food values. As immunization has saved many lives, so will food knowledge save many more. Palatability and sanitation have been standards of food production. In the future a new qualification will be demanded; that of nutritive value. Americans must be made aware of food values. Big advertising plans are in the offing.

One very excellent summary of present day research into the problem of cause and control of dental caries was delivered by Phillip C. Jeans, M.D., from the State University of Iowa. He claimed that sugar has taken more

blame for dental caries than it deserves. In the presence of an adequate diet, sugar does not seem to induce active caries. He declared that sugar in the form of candy or pastries is no more harmful than any other carbohydrate. Any carbohydrate acted upon by acid forming bacteria produces acid, therefore dental caries. A desire for sweets is indicative of an inadequate diet.

Vitamin D in the diet will improve the teeth regardless of any other factor. The dentine as well as the enamel will improve upon the administration of Vitamin D.

Antiseptics as well as Vitamin D have been used to inhibit dental caries. They have not been too successful. The only known method of caries control which does not fail is an adequate diet.

The public has become vitamin conscious to the extent of obtaining over the drug counters two hundred million dollars' worth of various and sundry vitamins during 1944. The best and cheapest source of vitamins is to be found in the natural foods.

Processing food such as dehydrating and freezing does not lower the mineral or vitamin content. White flour now is vitamin enriched, however the minerals are still found in a by-product, the bran. This is an unhealthy practice. Manufacturing and sales practices should not be adverse to public health. Advertising agencies should submit their copy and have it double checked by competent nutritionists before releasing the same to the public.

The amount of fluorine in the water as an aid to the prevention of dental caries is usually given as one part in a million. Carious teeth analyzed show less fluorine than non-carious teeth. The full effects of fluorine indigestion have not all been evaluated. Excessive intake of fluorine could conceivably occur during the summer months when consumption of water is high. Fluorinated water can only be supplied to urban centers. Best results are estimated at one-third less carious teeth with fluorine administration. Therefore it is no cure-all. To be effective, the fluorinated water must be consumed during the formative stages of tooth development.

Vegetables and fruits are now being grown with the aim of increasing their food value as well as their productivity.

Certain apples are now said to be as rich in vitamins as citrus fruits. Public interest is needed.

It has been clearly demonstrated that from the very beginning of life until the end that nutrition is the most important factor in one's well being. Infants born of mothers on poor diets usually leave the hospital in a poor state. Just the opposite is true of infants born of mothers on an adequate diet. Inadequately fed children by actual test are slower in school. Adequately nourished children are proved to be more alert. Soldiers on adequate diet are less complaining and can endure more than the poorly fed soldier. So the problem of nutrition is with each and every one of us from the cradle to the grave.

THE SULPHONAMIDES IN ORAL MEDICINE

by JOSEPH P. OSTERLOH, D.D.S., San Francisco, Calif.

Excerpt from Jour. of Oral Surgery, Jan. 1945.

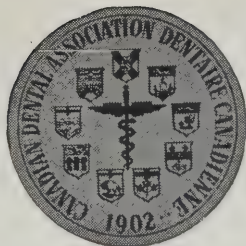
It has become a widespread practice to utilize sulphanilamide or a derivative in powder or crystal form in open wounds. Dentally, the principle has been applied to extraction sockets. In my opinion, the practice should be discouraged because clinical statistics have proved that instead of being beneficial, local application to bony sockets is actually detrimental to healing in the great majority of cases. Instead of benefit from topical application of the drug, there is many times an actual increase in local irritation and the pain is intensified. Krashen, in his study on the action of sulphonamides, concludes that sulphanilamide acts as a foreign body when applied locally and consequently such application interferes with normal blood-clot formation.

Many general surgeons are now using sulphonamide powder or crystals in wounds after operative procedures, and while many feel that post-operative infection occurs less frequently, few assert that it has no slowing effect on the healing process. In wounds with adequate tissue exposure, some assert

that an effective local concentration is established and thus advocate a fine spray in traumatic wounds. I have used this method in facial wounds and in through-and-through incisions such as are encountered in radical jaw reactions, but I doubt whether there was any actual benefit. I believe that the time required for epithelial regeneration was increased in every case. Belows found that not only do the sulphonamides have an unfavourable effect on actively growing epithelium, but also the amount of scarring is increased.

Two of the chief objections to local use are the local damage to tissue and the development of resistant strains of bacteria about the wound.

A few authors have reported successful local sulphonamide therapy in dry socket. How the drug is supposed to act in a socket devoid of a normal blood supply, or with none at all is not clear to me. After extensive experimentation, I conclude that to place a sulphonamide in a bony socket is of no benefit at any time, but often is rather detrimental to healing.



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Editorial

THE IMPORTANCE OF CO-OPERATION

by CHAS. H. M. WILLIAMS, D.D.S., B.Sc. (Dent.), Toronto, Ontario,
Chairman of the Journal Committee of the C.D.A.

The great country to the south of us was born in rebellion and by a declaration of independence. By virtue of the excellent advantages of soil and climate which exist in the United States, and with the strong spirit of rebels, the people built in independence a great nation. So rapidly and so strongly did they build that many of them, including some of their leaders, became convinced that their strength lay in their independence. They were reluctant to become involved in world affairs since they believed that they could get along without the rest of the world and that the rest of the world could get along without them. This great power continued in this assumption until the sad experience of Pearl Harbour. They now show definite evidence of the conviction that not only have they the responsibility of sharing their strength with the rest of the world but that their own national security is in jeopardy unless they become an active member of the family of nations of the world.

The dental profession was born of rebellion and by the establishment of its own teaching institutions declared its independence. Our leaders have shown zealous application to the development of dental services and we have developed a strong professional group. There are some among us who maintain that our independence is our strength and that we must maintain complete autonomy. As we have grown in our ability to serve the public our contacts with other professional groups have necessarily extended. It is no

longer possible for us to work as an isolated independent group. If we are to discharge our obligation to the public or to advance our own interests as a professional group we should be moving constantly to a closer relationship with the other members of the family of the healing arts.

That intimate co-operation of members of the medical and dental professions is necessary is well indicated by the findings of the extremely important study reported under the title "Medical Survey of Nutrition in Newfoundland" in the March issue of the *Journal of the Canadian Medical Association*. Reprints of this article are being sent to every member of the Canadian Dental Association as a recognition of the fact that application of these findings to an improvement in health of the Canadian people will require a co-operative effort of the physician and dentist.

It is interesting to note that a large part of all the manifestations of nutritional deficiencies which were observed during this study were on the lips or in the mouth. Nearly all of the rest of the manifestations were on the skin of the face or in the eyes where they may be observed by the dentist. Many indications of general nutritional deficiency will, in the future, be recognized by the dentist and be treated in co-operation with the physician. Undoubtedly this trend in co-operation will extend as more knowledge of the mouth manifestations of general disease becomes established.

The study was planned so that each section of the observations was assigned to an outstanding authority in a phase of the research on nutrition. It was apparently not realized in advance how frequent and significant would be the manifestations in and about the mouth, or it is likely that a dentist would have been included in the group making the study. The reports on the incidence of caries, periodontal disease, malocclusion and edentulousness are based on rather superficial observations made by the above-mentioned specialists and they are not sufficiently accurate to be compared with most other reports on these conditions. We get the general impression, however, that these dental diseases and conditions are more frequent and severe than is the average on this continent. Of course the great value of this report to the dental profession is the excellent description of the newer knowledge concerning some of the other signs of nutritional deficiencies.

The dental profession is faced with the challenge of acquiring a growing knowledge and constantly broadening practice as more information becomes available on the relation of our efforts to the general public health.

It is the belief of this writer that income itself should not constitute a strong attraction to the prospective doctor. A doctor, however, must take a certain place in society in order to exercise his art effectively. In any planned system of medical practice the matter of income, therefore, becomes a highly important point. How much should a doctor earn? The medical profession has dodged this question so far, but sooner or later, no matter whether payment is by fee, by capitation or by salary, the income question will have to be settled to the satisfaction of the public as a whole.—Can. Med. Assoc. Jour.

BOOK REVIEW

FULL DENTURE TECHNIQUE by W.

J. Tuckfield, M.D., Sc., (Melb.), Sc.D. (N'wstn.), F.A.C.D.; Senior Lecturer in Charge of the Department of Prosthesis, Dental School, University of Melbourne. Sometime Acting Professor and Dean of the Faculty of Dental Science, University of Melbourne. Published by the Australian College of Dentistry, University of Melbourne in 1944. 237 pages with 165 illustrations.

The author states that this book is based essentially on the notes used by him in his lectures to the students of the Dental School of the University of Melbourne and that the text is limited to a description of the technical procedures taught in the School. The technique outlined has been adopted after an examination of methods taught in other schools and as a result of personal clinical experience.

In addition to the discussion of technique two short chapters are included dealing respectively with the Masticatory Mechanism and the Laws of Articulation.

In the detailed description of impression procedure, the author uses a combination of

compound and plaster for the maxillary impression and full compound for the impression of the mandible. The "open mouth" technique is used in the upper and the lower impression is completed under biting stress with the "closed mouth" method. Trial base plates, either permanent or temporary, are used in securing records of jaw relations, and to provide a base on which to set the teeth. The technique in establishing denture space and registering jaw relations is an adaptation of the "Hanau" method with the "Snow" face-bow. Important chapters are included on the selection of teeth, the arrangement and setting of teeth, the final stages of denture construction, and instructions to the patient at the time of insertion. Further sections deal with immediate denture service, correction of faults in full dentures and a description of denture base materials.

The author is to be congratulated on the thoroughness with which he has discussed his technique and it is interesting to note the many American prosthodontists whose methods he has adopted in part and added to his own and to whom he has given due credit.

Kenneth M. Johnson.

DENTAL CORPS NEWS

SUPPLEMENTARY LIST OF CANADIAN DENTAL CORPS OFFICERS, APRIL 30, 1945

RETIREMENTS

Rank, Name and Date	Civilian Address	Rank, Name and Date	Civilian Address
Capt. (A/Maj.) D. L. McDonald, 20-3-45.....	Antigonish, N.S.	Capt. W. A. McDonagh, 4-4-45.....	Montreal, P.Q.
Capt. A. L. Posen, 9-4-45.....	Halifax, N.S.	Capt. M. Strokon, 7-3-45.....	Winnipeg, Man.
		Major G. H. Forbes, 13-3-45.....	Lethbridge, Alta

I have faith in the irresistible urge of the human spirit to survive and to go forward. I believe that democracy truly represents the human spirit at work in the organization and regulation of society. This can be said of no other existing form of government. Dictatorship is brutal because it is brittle. It cannot bend; it can only break, or be broken. It cannot lead its people; it can only drive them. Democracy, on the other hand, is resilient. It bends without breaking. It sways to the left or to the right, and returns to the point of normal balance. It calls for leaders, not for drivers. A free people can be led a greater distance and to greater heights than a slave people can be driven.—David Sarnoff.

NEWS FROM THE PROVINCES

ALBERTA:

Dr. G. B. Stibbs Clinics in Alberta

With ampler funds at its disposal the Board of Directors of the Alberta Dental Association arranged for the first of a series of clinics to be held in Alberta.

Dr. G. D. Stibbs of Vancouver gave a full day clinic in Edmonton and Calgary, each followed by a dinner and an excellent paper in the evening. His subject was "Gold Inlay Technique," stressing the Indirect Method with comparisons of its various advantages over the Direct Method. Giving credit to the late Dr. Fleetwood of Seattle, he carried through the various steps of the technique with a detailed discussion of method and materials. The value of electro copper plating the model and the use of the warm water swager were described and demonstrated. A more frequent use of the rubber dam for cavity preparation and other steps were emphasized as a requisite for more accurate work, with many advantages to compensate for the small amount of time required for its placing.

About a hundred and fifty civilian dentists and members of the Canadian Dental Corps attended and the opinion was expressed that an excellent clinic on a subject of importance had been ably presented. Dr. Henry Freeland of Calgary presided at the Calgary meeting and Dr. Clarence Lipsey of Edmonton, presided at the Edmonton meeting.

Edmonton Dental Society

The regular meeting of this Society was merged with a clinic given by Dr. G. D. Stibbs of Vancouver and held in the Macdonald Hotel on April 12. The Alberta Dental Association was responsible for securing and maintaining the expenses of this clinician on behalf of the Dental Societies of this Province; and the Edmonton Dental Society, in appreciation of this gesture, acted as hosts to the members of the A.D.C. and C.D.C. stationed in this district, as well as the out-of-town dentists.

Mr. Earl Pinch of the Ash Temple Co. was also present at the clinic and banquet.

The subject as presented by the clinician,

Dr. Stibbs, was "An Exact Simplified Technique for Gold Inlays."

Dr. C. H. Lipsey, President, with a few well chosen remarks, introduced the clinician.

Dr. Stibbs was exceptionally well acquainted with his subject; his material was excellently organized and his method of presentation so interesting there is no doubt that all present gained considerable from his experience, and that the gold inlay has been elevated to a new plain, in Edmonton.

Following the clinic, a banquet was held. The President acted as toastmaster and called upon the members to stand in silence for one minute to do honour to the late Franklin D. Roosevelt, our great friend and President of the United States of America.

Dr. Lipsey welcomed the members from the A.D.C. and C.D.C. and out of town guests, Major A. McEwen responding on their behalf.

Following this, the President presented Dr. Stibbs with a solid leather brief-case in appreciation of his efforts in making this clinic something of real practical value to all of us, Dr. Stibbs accepting and responding graciously.

The clinician "rounding out" his day, presented a paper on "Operative Procedure" which of course was relative to his clinic. Many points of concern were mentioned; the importance of the rubber dam was again stressed as well as the necessity of keeping the tooth as close to body temperature as possible.

Drs. Lipsey and Rooney on behalf of the Edmonton Dental Society and Alberta Dental Association respectively, again thanked Dr. Stibbs for his excellent clinic and paper.

The final meeting of the Edmonton Dental Society for the 1944-45 term was held in the Macdonald Hotel on May 1. This meeting being "Gadget Night" some very ingenious ideas and devices were presented by the members present. Dr. P. J. Kendal, with his gadget for sharpening dental instruments, was awarded first prize by the judges.

Following this the Society voted the sum of \$100.00 for an annual scholarship at the University of Alberta Dental School.

The following officers were elected for

the 1945-46 term; President, Dr. J. D. Hawkins; Vice-President, Dr. J. C. Ward; Sec.-Treasurer, Dr. P. J. Kendal; Social Convener, Dr. D. E. Florence.

Frank Parry Retires

The retirement of Mr. Frank Parry of the Denco Company brings to an end a service of twenty-five years to the dentists of Alberta and Eastern British Columbia.

During that time Mr. Parry has given continuous and efficient service in a wide territory, where his personal interest and helpfulness have won him a wide circle of friends among the members of the dental profession.

Mr. and Mrs. Parry leave for Victoria, where they will reside. Best wishes for their health and happiness.

SASKATCHEWAN:

Dental Council

The Saskatchewan Dental Council has announced the appointment of Dr. M. J. MacDonell, of Saskatoon to that body for the remainder of the term of the late Dr. Moun-teer, of Regina.

Saskatoon Dental Society

The regular monthly meeting of this Society was held on May 16 in the Bessborough Hotel.

Dr. Max Eastman of the Political Science Department of the University of Saskatchewan was guest speaker and chose as his subject "The San Francisco Conference." Dr. Eastman traced the history of the League of Nations from its origin to the present time and explained the set-up of the Frisco Conference. Dr. Eastman was the Geneva selection as the Canadian Representative for the International Labour Organization for fifteen years. His address was most interesting and was thoroughly enjoyed by all.

MANITOBA:

Winnipeg Dental Society

The Winnipeg Dental Society closed the 1944-45 season with reports from the Presi-

dent and Secretary-Treasurer showing a very successful year from all angles, membership, clinicians and financial. The annual dues had been raised from five to ten dollars and the membership increased from 78 to 91. Is there a moral in those figures?

The officers for next season are President, Dr. P. B. H. Wood; Vice-Pres. Dr. Thomas Blight; Secretary-Treasurer Dr. Ivan Jackson. The Executive Committee of five includes the three mentioned, Dr. H. J. Lawrence and Dr. C. S. McLeod.

Manitoba Dental Association

Another old-timer in the Association's ranks passed on suddenly on April 28 in the person of Dr. R. A. McGillivray who had been in practice in Manitoba since his graduation from the Royal College of Dental Surgeons of Ontario in 1904.

Dental Nurses and Assistants

Due to V.E. Day coming on the regular meeting night this Association held its Annual Meeting on May 14. The meeting was held at The Homestead.

The retiring Executive presented their annual reports and the following new Executive was introduced to the members.

President: Miss Hazel Wylie.
Vice-Pres: Miss Ethel Brown.
Secretary: Miss Marilyn Roland.
Treasurer: Miss Mary Davidson.
Program Convener: Miss Juel Grose.
Membership Convener: Miss Kay Hoffard.
Editorial Convener: Miss Jane McClure.
Social Convener: Miss Martha Livingston.
Sick and Visiting: Miss Theresa Frey.

Associated Hosp. Visiting: Miss Margaret Gilbert.

A corsage of red roses was presented to Miss Wylie. The spring flowers which decorated the tables were later sent to Fort Osborne Military Hospital.

The members were reminded of the Biennial Meeting of the Western Canada Dental Nurses' and Assistants' Association, to be held in June, and were urged to attend as many of the sessions as possible.

Following the brief business meeting and

installation of the new Executive the remainder of the evening was pleasantly spent playing novelty whist.

Jane McClure

ONTARIO:

Faculty of Dentistry, University of Toronto

Graduation Exercises for fifth year were held on May 9 at Convocation Hall. The following were honour students: L. K. Brooks, R. B. Dunlop, L. E. Gilroy, K. A. Hetherington, R. J. Murray.

The prize winners were: The A. E. Webster Memorial Scholarship, D. W. Waterhouse; The W. George Switzer Memorial Award, R. B. Dunlop; The Harold Keith Box Gold Medal, D. W. Waterhouse; The Harold Keith Box Silver Medal, M. H. Singer; The Wallace Seccombe Memorial Scholarship, J. A. Burnstein; Academy of Dentistry prize, F. W. Tropea; Dental Students' Parliament prize, R. J. Murray; The Wallace Seccombe General Proficiency prize, A. Schwartz; First and Second Oral Health Thesis Prize, S. Pearlman, R. B. Dunlop. (aeq)

Ontario Dental Nurses' And Assistants' Association

TORONTO AFFILIATED ASSOCIATION: The annual election of officers was held on April 2. Following elections, plans were made for another Rummage Sale to be held early in May. Poster boards were distributed for the Poster Contest at the Convention.

HAMILTON AFFILIATED ASSOCIATION: Following dinner at the Scottish Rite Club, Mrs. Stephens of the Courtland Health and Beauty Clinic addressed the meeting on "Facials and the Care of the Skin, and Scalp Treatment." Her practical suggestions and replies to our questions were most interesting. Our President reported 9000 carpules had been forwarded to the P.D.K.C. The election of officers was held at this meeting.

LONDON AFFILIATED ASSOCIATION: On April 4, the London members held their

meeting in the office of Dr. R. H. Galbraith. Dr. D. A. Campbell spoke on "Dentistry for Children."

The May meeting was held in the office of Dr. J. A. Gillies at which time the election of officers took place. Plans were also completed for the Convention.

WINDSOR AFFILIATED ASSOCIATION: The meeting was held on March 13 and a considerable amount of business was cleared away at that time. It was decided to hold the installation of officers and banquet in May to take advantage of Mr. Wm. McTavish's visit and have him as our guest speaker. Plans were made for another Rummage Sale to be held at the end of the month. Miss Shirley Graham, Vice-President, presided at the meeting on April 10. Irene McNair extended an invitation to the members to a tea on May 20 at which time a raffle will be held. Barbara Elmslie reported a clearance of \$54.08 at the Rummage Sale held on March 30. Election of officers was held at this meeting.

KITCHENER AFFILIATED ASSOCIATION: The Kitchener members were guests at the National Refining Company at a dinner. Mr. Wm. McTavish was the guest speaker and as usual was most interesting and entertaining.

The election of officers for the ensuing year was held at the April meeting.

The May meeting of the Kitchener Affiliated Association was a review of the clinics, posters and plans for Convention.

BRANTFORD AFFILIATED ASSOCIATION: The annual election of officers was held at the April meeting. Final plans and arrangements were made for the hospitalization plan and all members are now insured. A box was packed for the P.D.K.C. containing the quilt and miscellaneous articles.

Arlene Jamison Creeny.

Toronto Study Club of Dental Technicians

On April 14, thirty members of The Toronto Study Club of Dental Technicians were entertained by the Kerr Dental Manufacturing Co. at their Detroit Plant. The activities of the day commenced at 10 a.m. with an extremely interesting tour of the factory,

showing something of the intricate problems in the production of many items used in our Laboratories, and some fine war products being produced by the Kerr Company. This was followed by a Luncheon at the factory cafeteria. Later a series of demonstrations was given by members of the Company's research staff on Precision casting, the testing of dental materials, and a very informative discourse on acrylic for dental purposes with particular reference to Crystolex production and processing.

The day's activities ended with a dinner at the Book-Cadillac Hotel, with the Kerr Dental Company, ably represented by Bob Kerr and other members of their staff, as hosts.

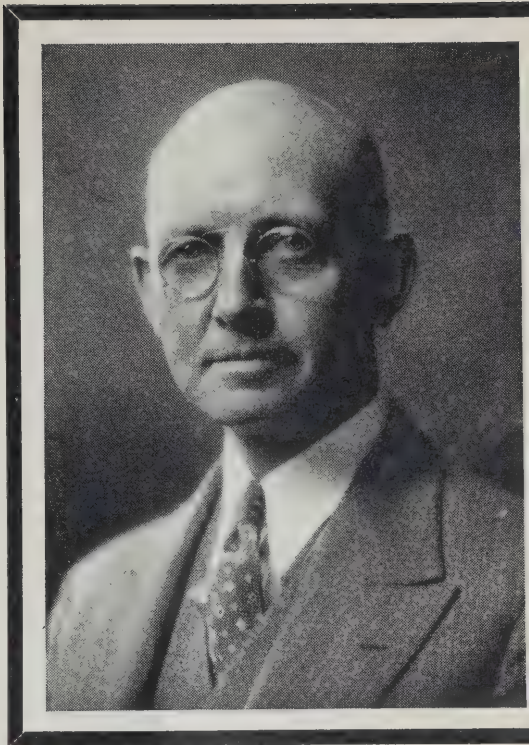
On the following day a joint meeting of the Michigan Dental Laboratory Guild and the Toronto Study Club of Dental Technicians was held at the Kerr Company's plant. In his address of welcome to the Toronto group, President Dunc. Marshall of the Michigan Guild discussed some of the post-war problems confronting the dental laboratory industry, particularly the training and replacement of dental technicians.

This address was followed by a very interesting address by Brigadier Frank M. Lott on the work of the Canadian Dental Corps. Then Tony Weitzel, columnist for the Detroit News gave an inspiring address which ended with a very fine tribute to the late Franklin D. Roosevelt.

President W. Walker in a brief speech expressed the appreciation and thanks of the Toronto group for the fine neighborly treatment they were receiving at the hands of the Kerr Company and the Michigan Technicians' Guild.

After Luncheon a series of clinics was presented by Dr. C. H. Ringle of the Williams Gold Refining Co. on Partial denture surveying. Mr. T. Nicolls of the I. Stern Co. on precision attachments for partial dentures and bridges; and Mr. J. C. Stratton of the Kerr Dental Mfg. Co. on "The Acrylics", as used in the processing of Acrylic dentures under precision control.

The day proved too short to permit taking full advantage of the complete program, for trains will not wait and the Toronto boys left for home at 4.00 p.m. with the feeling that the meeting had been well worth



By Roy Studio, Peterborough

J. E. MIDDLETON, D.D.S.

while, and with the hope that we may again get together in the not too distant future.

"Many thanks, Detroit!"

W. S. Allen

Dr. J. E. Middleton of Peterborough, Dies Suddenly

The passing of Dr. Middleton on April 28 was a great shock which deeply affected his many friends and associates. He had been ill only a few days when he died, following an operation considered to be of a minor nature.

He was a farmer's son, born on a farm near the city whose people greatly mourn his death. He received his early education in a small country school later attending collegiate and normal school. After teaching in nearby country schools for three years, he decided to attend the School of Dentistry of the Royal College of Dental Surgeons of Ontario, at Toronto. He was graduated in 1906 and returned to Peterborough to begin the

practice of Dentistry which he carried on actively until his death.

Dr. Middleton was a fine citizen and a professional gentleman. He was a leader in his community, his church and his profession. His interest never lagged. He had a fine sense of humor, and enjoyed good fun. He enjoyed the highest respect of his fellow citizens and his professional colleagues alike. He never grew old. Everyone seemed surprised to learn his age; his bright enthusiasm about all his interests were those of a young man. Whatever he believed in he actually promoted.

His genial personality will be greatly missed among his patients and those who knew him so well in the city he loved so much. His influence in his church and in its work undoubtedly will linger for good. His work as a leader in his profession will not be forgotten because it is the achievement of a man who used his professional endowments in service for his fellow men. It was a treasured honour to be President of the Ontario Dental Public Health Council—he was looking forward so much to its annual meeting in May. It was a pinnacle he just did not reach—but his spirit will live on in kindness, geniality and in love of fine things.

To his dear wife and daughter Betty is extended the sincere sympathy of many colleagues who knew him intimately and called him Joe.

T. R. M.

Class 2T3 and 2T4 Reunion At Winnipeg

Members of these classes attending the Western Canada Dental Convention being held June 18, 19 and 20 are invited to a joint reunion. Plan to attend.

E. Wallace

Toronto Ladies' Auxiliary

The annual meeting of the Ladies' Auxiliary to the Toronto Academy of Dentistry and the Canadian Dental Corps was held recently at the King Edward Hotel, Toronto, to which Dr. Harold A. Swales, newly elected President of the Toronto Academy of Dentistry, brought greetings.

The business session followed luncheon at which Mrs. F. L. Dayment, president, occupied the chair.

The following conveners presented their reports:

Red Cross Sewing—Mrs. George W. Grieve reported 615 articles including hospital supplies and wearing apparel.

Knitting—Mrs. A. J. McDonagh stated that 106 articles were sent overseas.

Scrap Gold—Mrs. R. W. Matchett announced that \$526.55 had been realized from the sale of scrap gold making a grand total to date of \$3100.

Overseas Parcels—Mrs. J. W. MacDonald reported 750 parcels sent to men in the Dental Corps.

Cigarette Fund—Mrs. K. R. Harris reported that 201,600 cigarettes had been sent overseas as well as chocolate bars to Newfoundland.

War Savings Stamps—Mrs. A. F. Cooper stated that the members of her committee had been on duty at Eaton's College St. Store booth on assigned days.

Unit Auxiliaries—Mrs. L. Twible announced that members of this committee had met 40 troop trains and that \$15.00 a month is provided for Unit Auxiliaries cigarette fund for Christie St. Hospital.

Publicity—Mrs. J. M. Cation expressed appreciation of the co-operation of the Press in connection with publication of reports of the various meetings.

At this meeting it was decided to repeat the Victory Draw during the Annual Convention of the Ontario Dental Association in an endeavor to raise funds to carry on different Auxiliary projects for the ensuing year. The net proceeds of this draw was \$1,331.00.

Mrs. F. L. Dayment, the retiring president was presented with flowers as a token of appreciation of her very fine efforts during her term of office.

The members of the executive for the year 1945-46 are:

Past President—Mrs. F. L. Dayment, President—Mrs. R. W. Matchett, 1st Vice President—Mrs. L. R. Davison, 2nd Vice President—Mrs. M. G. Boyes, Recording Secretary—Mrs. H. J. Mullett, Corresponding Secretary—Mrs. S. M. Richardson, Treasurer—Mrs. J. M. Cation, Councillors—Mrs. W. T. McIntosh, Mrs. A. F. Cooper, Mrs. Fred J. Conboy, Mrs. George Walker, Mrs. A. B. Sutherland.

Cornwall Dental Association Reorganized

This Association was reorganized in April and the following officers were elected: President, Dr. J. A. Phillips; Secretary-Treasurer, Dr. W. C. Sullivan; Chairman of the Social and Entertainment Committee, Dr. B. J. Rouleau. Dr. J. V. Lally presided at the meeting.

Thunder Bay Dental Association

At the annual dinner of this Association held April 7, the following officers were elected: President, Dr. T. H. Hutchinson of Port Arthur; Vice-President, Dr. G. A. Kerster; Secretary, Dr. H. A. Saunders.

Members and guests present were treated to an interesting address by Major J. D. McIntosh who recently returned from Italy where he served with a medical corps. Dr. W. T. McGorman of Port Arthur spoke on his observations as a dentist over the past fifty-three years.

QUEBEC:

Mount Royal Dental Society

A general meeting of this Society was held on March 27, in the Mount Royal Hotel.

Dr. C. I. Finklestein was the clinician for the evening. He gave a table clinic showing the various types of cavity preparations used in fixed restorations.

The wax pattern impression technique, pointing out the importance of proper carving and the care of the wax pattern, also, the construction of the swaged cast, and the modified type of cast crown were discussed. A demonstration was also given of investing technique, operating on the vacuum principle which produces precision inlays, a scientific appliance which was invented by Dr. Hollenbach of Los Angeles, California.

There was an exceptionally large attendance for this interesting demonstration.

The annual meeting of this Society was held on April 24 in the Mount Royal Hotel.

The following officers were elected for the year 1945-46: President, Dr. J. Fineberg; Vice-President, Dr. M. Levitt; Secretary, Dr. M. Goldenberg; Ass't. Sec. Dr. B. Bernfeld; Treasurer, Dr. M. L. Simon; Executive, Drs.

L. Lightstone, S. Harris, D. Muhlstock, I. Druckman and C. Finkelstein.

NOVA SCOTIA:

Halifax Dental Society

The final dinner meeting of this society for the winter session was held at the Nova Scotian Hotel on April 12.*

Resolutions were presented regarding the dental care of ex-service personnel and fees governing such services. After an animated discussion the matter was referred to the delegates to the Canadian Dental Association for presentation to that body at their next meeting.

Dr. Stanley Bagnall was speaker of the evening and he gave a review of articles on many phases of Dentistry which had appeared in various publications during the past year. The paper and discussion which followed were of much interest.

The Nova Scotia Dental Association will hold its annual meeting at the Cornwallis Inn at Kentville on August 2-4. An interesting program is assured and all ethical dentists are cordially welcome.

BRITISH COLUMBIA:

Vancouver Dental Society

The regular monthly dinner meeting of this Society was held in Hotel Vancouver. The President, Dr. N. H. Scott, presided.

A very welcome visitor at this time was Dr. J. Pettit of the North Pacific College of Oregon. He is a very popular member of the Faculty of that College. In addition to general College news, he told of the taking over of the North Pacific College as the Faculty of Dentistry University of Oregon.

The program for the evening was provided by the Diagnosis Study Club of the Society whose studies are based chiefly on the x-ray technique of Dr. C. O. Simpson of St. Louis. Dr. George Darts gave a paper on the subject and Dr. John Ingledew followed with a group of slides and a talk explaining Dr. Simpson's technique on the taking of dental radiograms.

After adjournment of the meeting a table clinic was set up showing radiograms that

had been taken by the Study Club during the past season. Questions were answered at this time.

Election of officers for the ensuing year resulted as follows:

President, Dr. J. Chambers.

President-elect, Dr. J. Ingledew.

Board of Censors, Drs. G. A. C. Walley, E. Nordin, W. D. MacLeod and T. J. Hackett.

A vote of thanks was extended to Dr. John Hill for his very useful work as a member of the Council of the College of Dental Surgeons of British Columbia for the past several years. Dr. Hill made known his intention of retiring from this office previous to the elections held on April 16.

A vote of thanks was also extended to the officers of the Society who had served so

faithfully during the past years. The meetings have been excellently arranged and well attended.

A motion was passed instructing the Secretary to write Lieut-Col. Fraser Allen as he had been mentioned in Dispatches on service overseas.

College of Dental Surgeons of British Columbia

At the election of members of the Council held on April 16, the following were elected. District No. 1—J. E. Gee, P. J. Rumball. District No. 2—E. C. Jones. District No. 3—H. M. Cline, W. J. Lea, Wm. Miller, R. L. Pallen. District No. 4—T. F. Parmley.

GENERAL NEWS

New Motion Picture of American Dental Association

A new sound motion picture called "A.D.A.", the story of the American Dental Association, has been completed and was released March 1.

The film which runs for twenty-two minutes, was produced under an appropriation of twenty-five thousand dollars from the American Dental Association.

Columbia Merges Dental Faculty with School of Medicine

Developing an educational policy which aims to strengthen dental education, research, and practice, Columbia University has integrated the Faculty of Dentistry with the Faculty of Medicine.

The decision of the Trustees of the University aims to insure the active interest and support for dental education and research of the strong staff of physicians, surgeons, scientists, nurses, and public health leaders who comprise the Faculty of Medicine at the Medical Centre and to emphasize the importance of dentistry itself.

The staff in dentistry will retain its identity as a professional group within the Faculty of Medicine, and will have departmental autonomy in carrying out the University's educational program in dentistry, which will be

continued under the name of the School of Dental and Oral Surgery, according to Dr. Butler. This program, he explained, recognizes the great importance of continuing the independence of dental practice and the preparation of dentists in courses of instruction shaped to meet their own particular needs.

Underground in Greece

An article by a "British Officer" recently appeared in the Manchester Guardian and two paragraphs from it have dental interest.

"John, the man who ran the underground press in the same area, was a harmless character to look at—frail, narrow-shouldered, undemonstrative. In 1940, before he graduated as a dentist at Athens University, the Greek Army called him up for the Albanian war. After the war, to pay university fees, he opened a fruit and vegetable shop in Athens and supplied fugitive British troops with sweetmeats to sell on the streets. When he returned to his home district the Italians gaoled him, but after ten days the warden left the cell door open by mistake and John and half a dozen others walked out.

An identification card was forged for him and he began to work for a dentist. One

day Emmanuel went to have a tooth filled. They talked and Emmanuel said that he was working for the British and more help was needed. So John became a British agent during the mornings, a dentist in the afternoons, and a distributor of leaflets and posters at night."—Dental Record.

•
Health in India

Reckoned according to present standards in the United Kingdom, which are not regarded today as adequate and will certainly be improved in the next twenty-five years, India would require:

10	times	as	many	medical practitioners
170	"	"	"	trained nurses
70	"	"	"	health visitors
26	"	"	"	trained midwives
1,000	"	"	"	trained pharmacists
130	"	"	"	dentists.

No account ether is taken of the fact (a) that ill-health is far more common in India than in the United Kingdom, or (b) that the average medical practitioner in India, at present, has not had nearly as good a professional training as the average practitioner in Great Britain.

It is clear that the most strenuous effort will need to be made in India, over a good many years, to improve the conditions of medicine and public health: and it would be raising false hopes to suggest that the needs can be met in a short time.

•
Foundation Offers Prizes of \$45,000 For Discoveries

A series of prizes totalling \$45,000 has been established by the Sugar Research Foundation, Inc., of the U.S.A. and will be awarded over a period of five years to scientists for the discovery of new uses of sugar in medicine, art, industry and technology. The awards will be made and the project will be administered by the National Academy of Sciences through its National Science Fund.

•
Dental Education in the Northwest of the U.S.A.

The cause of dental education in the Northwest has recently been notably advanced by action of the legislatures of the states of

Washington and Oregon. In Washington, more than \$4,000,000 has been appropriated for the erection, equipment and maintenance of new schools of dentistry and medicine. In Oregon, the University of Oregon, by action of the state legislature, has accepted title to the properties of the North Pacific College of Oregon. After July 1, the Oregon State System of Higher Education will take over operation of the school.

•
Massachusetts to Study Fluorine Possibilities

A bill has been introduced into the Massachusetts legislature authorizing and directing the Department of Public Health to investigate and study the decay of teeth resulting from lack of fluorine in the drinking water. The bill provides that the department study all questions relating to the prevention of caries, including the prevalence of caries among the inhabitants of the commonwealth, the best methods for preventing caries including the application of fluorides to the public water supply and the effectiveness of fluorine used in prophylactic treatment, in lozenges, pills and mouth washes containing various strengths of fluorine.—Rev. of Chi. D. Soc.

•
Comparative Dues of American Dental Societies

Akron Dental Society (Ohio)			
Los Angeles County (Calif.)			
New York City (2nd Dist.)			
New York City (1st Dist.)			
Cleveland Dental Society			
San Diego (Calif.)			
Detroit Dental Society			
St. Louis Dental Society			
Local	State	Nat'l.	Total
\$40.00	\$4.00	\$6.00	\$50.00
27.00	37.00	6.00	70.00
25.00	5.00	6.00	36.00
23.00	5.00	6.00	34.00
12.00	4.00	6.00	22.00
9.00	37.00	6.00	52.00
11.00	8.00	6.00	25.00
11.00	11.00	6.00	28.00

Practically all trade and craftsmen's unions range from \$50.00 to \$150.00 annually.

IN MEMORIAM

Joseph Edward Middleton, of Peterborough, Ontario, aged 68, died quite suddenly in Nicholls Hospital on April 28.

He was graduated from the Royal College of Dental Surgeons of Ontario in 1906. He began practice in Peterborough where he continued until his death.

Dr. Middleton was a fine public spirited citizen. He was a member of Trinity United Church and a former superintendent of its Sunday School. He was a member of Peterborough School Board in 1913, a past president of Peterborough Horticultural Society, president of Peterborough Dental Society in 1930. At the time of his death he was president of the Ontario Dental Public Health Council, Secretary of Nicholls' Park Board, Vice-pres. of the Cemetery Board and a member of Arthur Lodge A.F. & A.M.

Dr. Middleton is survived by his widow and one daughter as well as one sister and two brothers.

•

Andrew Thomas Morrow of Maxville, Ontario, aged 75, died at his home on May 6.

He was graduated from the Royal College of Dental Surgeons of Ontario in 1899. He immediately began practice in Maxville and continued until his death.

Dr. Morrow was at one time president of the Ontario Horticultural Society, the Ontario Educational Association, and Reeve of Maxville.

He is survived by his widow.

•

C. F. Lewis, of Toronto, Ontario, aged 53, died at his home on April 26.

He was graduated from the Royal College of Dental Surgeons of Ontario in 1915 whereupon he enlisted in the Canadian Army Dental Corps. On demobilization in 1920 he began practice in Toronto. In 1940 he again enlisted and served in the Canadian Dental Corps until retirement in 1942.

Dr. Lewis is survived by his widow and one son, Donald.

•

Thomas C. Griffith, of Woodbridge, Ontario, was killed in an explosion and fire in his office May 22, the cause being undetermined. He was graduated from the University of Toronto in 1927 and practised in Weston and Tottenham before moving to Woodbridge five years ago. He was a member of the United Church.

Dr. Griffith is survived by his widow and four children.

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La Carie Dentaire

La Carie? — Qu'en savons-nous?

Après vingt-cinq ans de pratique ou plus, bien des illusions s'évanouissent, bien des certitudes font place au doute et bien des enthousiasmes se refroidissent. Seule demeure contre les maux qui nous atteignent, une lutte acharnée soutenue par l'invincible espoir et la légitime ambition d'en faire disparaître au moins quelques-uns. Qui de nous dans son jeune âge n'a pas cru fermement que la carie dentaire était due à tel ou tel facteur, n'a pas prescrit tel ou tel usage ou tel ou tel régime avec la conviction presque absolue de l'enrayer à brève échéance, de certaines bouches, de certaines familles ou même de certaines contrées?

Qui n'a pas cru à l'efficacité souveraine de la brosse à dent, à la vertu miraculeuse de l'huile de foie de morue, des jus d'oranges et des sucres non raffinés? Sans doute le fondement de ces croyances reposait sur une part de vérité, mais comme il était loin de la posséder toute. La question nous apparaissait trop simple; la science vient de tirer le voile qui nous en cachait toute la complexité. Plusieurs soupçonnaient que la cause de la carie n'était pas seulement locale et le Docteur Hamel, toujours à la page, vient de nous faire une splendide synthèse des découvertes ou ont abouti tous les chercheurs sérieux. Nous sommes heureux de publier son travail en entier. Il a lu et analysé pour nous les plus récents progrès scientifiques. Si le dernier mot est loin d'être dit, au moins pouvons-nous entrevoir que les chercheurs ont pris la bonne direction et que bientôt peut-être sera-t-il possible de faire beaucoup plus de prévention que de réparation.

Je serai obligé de publier cette importante étude par sections, mais je suis convaincu que les confrères sauront quand même la lire avec intérêt.

Dr. Alcide Thibauudeau.

La Carie Dentaire¹

Ses causes — Sa prévention

Sans la carie dentaire, et sa soeur, la pyorrhée alveolo-dentaire — savamment appelée "périodontoclasie, polyarthrite alveolo-dentaire ou paradentose", — le dentiste aurait-il subsisté? Ces deux maladies n'occupent, il est vrai, qu'un espace assez restreint dans nos traités, mais elles n'en constituent pas moins, en pratique, la source d'occupation principale de la grande majorité d'entre nous.

A date, pour nous, le traitement de la carie a consisté beaucoup plus dans la réparation de ses destructions que dans sa prévention. Nos progrès en technique opératoire apparaissent merveilleux depuis quelque vingt-cinq ans. Nos connaissances en diététique se sont aussi fort accrues, dans le même temps. La carie n'en continue-t-elle pas moins ses ravages déconcertants? Notre situation comme professionnels ne devient-elle pas difficile, en présence de notre impuissance à enrayer, sur une haute échelle, la dévastation du domaine dont la garde nous est confiée? L'examen des recrues pour l'armée, au Canada comme aux Etats-Unis, n'a-t-elle pas révélé une situation déplorable au point de vue dentaire? Le gouvernement américain, justement alarmé, a institué, si j'ai bonne souvenance, trois commissions chargées de l'étude dans le domaine de la bactériologie, de la biochimie et de la diététique, des causes de la carie. Devant la forte proportion des inaptes au service militaire pour des raisons d'origine dentaire, Washington a reconnu l'urgence de chercher à enrayer cette désastreuse destruction de la dent. Il est à regretter qu'Ottawa et nos gouvernements provinciaux n'aient pas aussi bien compris la nécessité des recherches sur les véritables causes de la carie.

Nous remplaçons admirablement les dents disparues ou extraites, à la suite des ravages de la carie ou de la pyorrhée; nous restaurons, en artistes, les parties de dents, emportées par la carie, dans la classe bourgeoise ou riche; mais comme prévention contre ce mal, notre avancement s'avère plutôt médiocre.

Advenant que l'humanité perdrait ses pieds par une maladie dont nous ignorerions la cause, serions-nous satisfaits d'entendre les médecins et les chirurgiens nous annoncer des membres artificiels d'une grande perfection ou des béquilles de première qualité pour remplacer nos pieds emportés par une nécrose d'origine inconnue?

Sans donner aux dents une importance égale à celle des pieds, notre situation présente ne ressemble-t-elle pas, toutefois, un peu à celle dans laquelle se trouveraient ces médecins devant la nécrose universelle des pieds dont ils ne répareraient que les désastres sans pouvoir enrayer pareille calamité?

Octrois:

Les gouvernements devraient verser des octrois spéciaux aux universités pour activer les études diététiques, biochimiques, endocrinologiques, immunologiques, dans le but de découvrir des moyens efficaces et pratiques de prévenir la carie dentaire sur une haute échelle.

Diététique:

Dans le domaine de la diététique, bien que les recherches affichent des progrès notables, il reste, il faut l'avouer, énormément à accomplir, car les contradictions sur des points capitaux demeurent trop nombreuses entre savants.

Ainsi BUNTING (2), par exemple, déclare n'avoir trouvé aucune preuve que la carie dentaire soit produite par la malnutrition ou qu'elle puisse être prévenue par un régime alimentaire adéquat. Pour lui, une alimentation contenant une faible ration

(1) Travail présenté devant la Société dentaire franco-américaine, le 21 mars 1945, à Boston.

(2) BUNTING: cité dans "Diseases of the Mouth" par Sterling V. Mead, 5ième édition, 1940, p. 154. The C. V. Mosby Co., St. Louis.

de sucre et déficiente en calcium, phosphore et vitamine D, donne peu de carie; tandis qu'un régime alimentaire bien balancé, auquel on ajoute une forte quantité de sucre, donne beaucoup de carie.

OSMAN, CAMERON (3), par contre, préconisent l'usage de beaucoup de sucre chez l'enfant très actif, invoquant qu'un enfant affamé souffre d'acidose tout autant qu'un enfant suralimenté.

Enfin d'autres, plus nombreux ceux-là, démontrent que la prévention de la carie dentaire s'obtient par une alimentation bien proportionnée en protéine, corps gras, hydrates de carbone, minéraux et vitamines, pour satisfaire les besoins de l'organisme; et aussi bien équilibrée au point de vue acido-basique, c'est-à-dire par une alimentation contenant assez d'aliments alcalinisants pour que soient neutralisés les acides formés par l'oxydation des hydrates de carbone et des protéines dans l'organisme, ou vice-versa.

Ces affirmations peu concordantes de diverses autorités contiennent toutes, néanmoins, des vérités. L'expérience démontre que si l'on rencontre des sujets où chacune de ces théories opposées reçoit une confirmation complète, il s'en trouve aussi pour infirmer totalement chacune d'elles.

Toutefois, peu d'entre nous nieront que les excès alimentaires sont aussi nocifs que la privation d'aliments, parce que la suralimentation, par mauvaise oxydation au cours du métabolisme des aliments, surtout des corps gras, donne de l'acidose, tout comme cela se produit pour la sousalimentation, pour des raisons différentes. L'enfant glouton affiche d'ordinaire plus de caries que l'enfant à l'appétit modéré.

La plupart d'entre nous, instruits par nos observations quotidiennes, reconnaissent que les grands mangeurs de sucre ont d'ordinaire de la carie à profusion. Comme règle générale, il paraîtrait difficile de nier que le sucre servi en abondance favorise la carie. Néanmoins, qui de nous n'a pas rencontré des patients pratiquement immunisés contre la carie bien que faisant un usage excessif de sucre? Il nous reste donc à trouver l'explication de ces exceptions à la règle. Une fois la cause de ces exceptions connue, il se pourrait que l'exception devienne la règle.

Quand en 1925, BRODERICK a voulu prouver la nécessité de donner beaucoup de sucre à certains enfants, il s'est vu refuser la publication de son article. C'était un point de vue trop en contradiction avec l'opinion généralement admise par la profession. On ne pouvait permettre la diffusion d'une telle hérésie dentaire. A-t-on eu raison? C'est fort possible. N'oublions pas, cependant, que de plus grands savants que BRODERICK ont été bafoués pour avoir voulu répandre des "erreurs" qui, aujourd'hui, sont devenues des vérités universellement admises. N'oublions pas PASTEUR et ses luttes avec la Faculté de Médecine pour anéantir la théorie de la génération spontanée.

Les Eskimos et les Maoris s'alimentent en contravention avec nos connaissances diététiques. Ils vivent surtout de protéines et d'hydrates de carbone. C'est une alimentation qui ne concorde aucunement avec nos notions de la diététique moderne et, cependant, ils semblent immunisés contre la carie. Les explications théoriques de cette immunisation ne manquent pas. Qui nous donnera l'explication "in concreto"? Dès que les Maoris quittent l'état sauvage pour venir à la civilisation, leurs dents se carient dans la même proportion que celles des autres civilisés. (4) Dire que la civilisation est une cause de carie, c'est se contenter de mots. Si nous respectons les lois de l'hygiène et les lois de la diététique, nos dents se carient. Les indigènes ne respectent aucune de ces lois et sont exempts de caries. Nos lois pèchent-elles par certains côtés?

(3) OSMAN, CAMERON, cités dans: "The Principles of Dental Medicine", 3ième édition, 1939, par Broderick, p. 242. C. V. Mosby Co., St. Louis.

(4) "Prevention of Dental Caries", PICKERILL, 2ième édition, pp. 11-12.

Biochimie - Endocrinologie:

La biochimie et l'endocrinologie encore toutes jeunes, nous offrent des possibilités vastes et pleines d'espoir pour la prévention de la carie. Le dentiste de demain devra posséder à fond les secrets de ces sciences nouvelles, s'il veut garder à notre profession le rang qu'elle mérite. Le dentiste de l'avenir devra, à mon humble avis, être d'abord un médecin accompli, puis se spécialiser dans la pratique de la chirurgie dentaire. Peut-être y aura-t-il place pour le médecin-dentiste et le chirurgien-dentiste. Le premier (le médecin-dentiste) s'occupera des analyses du sang, de l'urine, de la salive; prendra le métabolisme basal, la pression artérielle; observera si le sympathique ou le parasympathique domine le système végétatif; étudiera le régime alimentaire du patient, le fonctionnement du tube digestif, des glandes endocrines, l'état colloïdal des particules de protéines dans le plasma sanguin, la formule sanguine; vérifiera la réserve alcaline, pour ensuite prescrire un régime alimentaire, hygiénique et thérapeutique, en rapport avec les déficiences alimentaires ou organiques notées au cours de l'examen. Pour ce spécialiste, la carie dentaire représentera moins une maladie qu'un symptôme de perturbations constitutionnelles, de carence alimentaire, de suralimentation, d'insuffisance endocrinienne, de rupture de l'équilibre dans le système nerveux autonome.

La second, (le chirurgien-dentiste), continuera de remplir le rôle que nous jouons présentement. Il s'appliquera principalement à réparer les dégâts, à sauver l'esthétique et à conserver le pouvoir de mastication de son patient, tout en secondant les directives scientifiques et non plus empiriques du médecin dentiste pour la prévention de la carie. Son domaine comprendra la chirurgie-dentaire, la dentisterie opératoire, la prothèse, l'orthodontie, la radiologie, l'anesthésie.

Chacun de ces deux spécialistes possédera un vaste champ d'action et devra jouir d'une haute culture. Ils se compléteront l'un et l'autre sans se nuire, pour le plus grand bien de tous.

L'étendue des connaissances que requièrent la partie médicale et la partie exclusivement dentaire de notre profession devient telle que seules quelques exceptions peuvent en couvrir tout le terrain. Pour obtenir une bonne moyenne de savoir chez la plupart, il faudra bientôt faire la partage des champs d'action.

Les causes de la carie:

Les causes directes et indirectes de la carie dentaire s'offrent nombreuses et variées: le climat, la race, l'hérédité, les influences biologiques prénatales et postnatales, l'eau, la diététique, les maladies (particulièrement les fièvres exanthémateuses), les troubles endocriniens, l'influence de l'altitude où l'on vit, la malocclusion, la malposition des dents, l'hypoplasie dentaire, l'avitaminose, enfin le microbe que l'on considère comme l'agent direct de la carie: le bacille acidophile. Voilà autant de causes qui peuvent contribuer à la destruction de la dent par la carie. Nous essayerons, en nous inspirant des travaux de McDonagh (5) et de Broderick (6), de démontrer sommairement que toutes ces causes, bien que très variées, peuvent se rattacher à un dominateur commun. Ici, je dois vous l'avouer en toute humilité, je viens simplement exposer un point de vue que bien des facteurs appuient et qui, cependant, divise les savants en camps opposés, tout comme cela est arrivé maintes fois dans l'histoire de la médecine tout autant après l'énonciation des plus solides vérités médicales que des plus discutables.

Théorie microbienne de Miller:

La théorie chimico-parasitaire de la carie, énoncée par Miller en 1885, demeure toujours vraie. La fermentation des hydrates de carbone sous l'influence du bacille acidophile odontolytique (appelé aussi le lactobacille acidophile) demeure une des

(5) "The Nature of Disease", Parts I, II, III, London, 1924-31. McDonagh-William Heineman Ltd.

(6) "The Principles of Dental Medicine", 3ième édition, par F. W. BRODERICK, London, 1939. The C. V. Mosby Co., St. Louis, U.S.A.

principales causes de la destruction de l'émail et de la dentine sous l'influence de l'acide lactique que produit ce micro-organisme en décomposant les hydrates de carbone. Selon Rodriguez, ce microbe peut produire un acide avec un pH de 2.8. C'est démontrer sa puissance acidogénique. Il croît en milieu acide et peut rendre ce dernier assez acide pour empêcher les autres micro-organismes de s'y multiplier.

Goadby ("Mycology of the Mouth") nomme comme responsables de la carie parce qu'acidogéniques, le streptocoque, le staphylocoque blanc et doré et plusieurs autres.

MILLER lui-même croyait responsable de la carie tout microbe susceptible de former de l'acide.

Pour d'aucuns, la cause de la carie est d'origine locale :

Parce que l'on trouve le bacille acidophile dans tous les cas de carie, plusieurs voient dans ce microbe la cause principale de la décalcification des dents. Pour eux, la carie est d'origine locale et se résume à l'action de bactéries à puissance acidogénique, sur les hydrates de carbone pour former de l'acide lactique. La partie minérale de la dent est dissoute par l'acide, pendant que les bactéries continuent de désagréger la substance organique de la dent, en la peptonisant.

Si tel était le cas, le remède efficace contre la carie consisterait alors simplement en des soins antiseptiques et prophylactiques de la cavité buccale. Il s'agirait de détruire sur place le bacille et de lui enlever sa nourriture, les débris d'hydrocarbonés (de sucre et d'amylacés) demeurés sur et entre les dents et non digérés par la ptyaline.

La brosse à dents :

C'est là, vous le reconnaissez, la théorie chimico-parasitaire de la carie du célèbre MILLER. Nous sommes demeurés longtemps convaincus que la brosse à dents jouait un rôle primordial dans la préservation des dents. "A clean tooth does not decay" fut l'axiome des partisans de cette théorie de Miller, c'est-à-dire de toute la profession dentaire. Aujourd'hui, nous savons tous que cet axiome a cessé d'être vrai et qu'une dent parfaitement propre se carie, alors qu'une bouche infecte peut contenir une denture exempte de carie. Vous me comprenez, il n'est aucunement question, ici, de condamner l'usage de la brosse à dents, mais simplement de lui accorder la place qu'elle mérite dans la prévention de la carie, place qui est loin d'être la première.

La théorie chimico-parasitaire demeure vraie, malgré tout, parce qu'on peut reproduire "in vitro" la carie dentaire, en cultivant le bacille acidophile dans de la salive contenant des hydrates de carbone.

OSBORN, NORISKIN & STAZ (7) déclarent que par une culture microbienne dans un milieu contenant du sucre et des céréales mélangés à de la salive, ils ont obtenu la décalcification de dents saines en deux ou huit semaines. Le sucre raffiné contribue fortement à la décalcification des dents, tandis que le sucre de canne naturel cause peu de carie.

Néanmoins, cette théorie de Miller fortement secondée par les expériences de laboratoire et par les observations cliniques, reste soumise à des causes qui cessent d'être locales, c'est-à-dire d'origine buccale. Ces causes se retracent dans le plasma sanguin et dans le système végétatif, autonome. Nous le verrons par la suite.

Ce que ne saurait expliquer la théorie de Miller :

La théorie de Miller, à elle seule, ne saurait expliquer que la carie se manifeste plus dans le bas âge qu'à l'âge adulte; ne saurait expliquer ces périodes d'immunité et de prédisposition à la carie chez les patients. La théorie de Miller ne saurait expliquer que dans les cas de pyorrhée où la flore microbienne et les débris alimen-

(7) Opus cit MEAD, p. 157.

taires s'offrent abondants, la carie soit rare ou totalement absente. La théorie de Miller ne saurait expliquer la carie chez les patients souffrant de diabète ou de goître.

Les calories :

Une fois cette théorie microbienne exploitée à fond sans résultat notable pour la prévention de la carie, les recherches se sont accentuées du côté de la diététique. On a calculé les calories nécessaires à la ration d'entretien de l'organisme, c'est-à-dire environ 2,500 à 3,000 par 24 heures pour un homme adulte de poids moyen. Pour l'individu soumis à un labeur intensif, cette ration pouvait s'élever jusqu'à quatre ou cinq mille calories.

Ces calories, on les répartissait sur des substances albuminoïdes, en tenant compte des acides animés qu'elles contiennent, sur des hydrates de carbone, sur des graisses et des minéraux, selon les proportions établies pour un régime bien équilibré. En chiffres ronds, la ration quotidienne doit contenir: (8)

500 grammes d'hydrate de carbone;
120 grammes de protéine;
50 grammes de gras.

Ce qui donne 3,000 calories environ.

Là encore on rencontra de fortes déceptions. On a dû venir à la conclusion que la nutrition ne se résumait pas seulement à une question de diététique ou de calories, mais qu'elle dépendait aussi du métabolisme et du fonctionnement des glandes endocrines. On a compris qu'ingestion et assimilation des aliments ne donnaient pas les mêmes équations, et qu'absorption et fixation ne fonctionnaient pas toujours de pair.

VITAMINES

Vitamine D.:

Puis est venue la découverte des vitamines. Cette fois, le problème paraissait définitivement résolu. McCollum, Funk, Bunting, Howe, et combien d'autres savants firent époque avec leurs recherches. M. et Mme. Mellanby se distinguèrent particulièrement avec leurs études sur la vitamine D. Ils ont démontré que la structure de la dent était très importante pour l'immunité contre la carie et que la vitamine D. jouait un rôle primordial dans la calcification des dents.

Tout rationnels que soient les principes émis par les Mellanby, les faits les contredisent malheureusement.

Les dents les mieux immunisées contre la carie sont peut-être celles où l'émail se trouve le plus défectueux, les dents madrées (*mottled teeth*) par la fluorose due à la présence de fluore dans l'eau potable, à plus de 2 parties pour un million d'eau. Voici un fait qui constitue, pour le moins, une formidable exception au principe émis par les Mellanby.

De son côté G. V. BLACK avait prouvé, dès 1896, que la densité de la dent et le pourcentage de sels de chaux que renfermait sa structure, n'avaient aucune influence sur l'immunité contre la carie. L'expérience quotidienne semble donner raison au Dr. Black. Les dents atteintes d'hypoplasie dentaire ne sont-elles pas, en général, très résistantes à la carie? Il faut admettre que si la carie les envahit, elles deviennent une proie plus facile pour l'action de l'acide lactique. Mais comment expliquer qu'elles soient si souvent indemnes de carie?

M. et Mme. Mellanby ont, certes, obtenu des dents mieux calcifiées en ajoutant des unités de vitamine D. dans l'alimentation de leurs sujets. Nous savons tous le rôle important que joue la vitamine D. dans le métabolisme et la fixation du calcium et du phosphore. Mais la résistance de ces dents à la carie ne pouvait être attribuable à la densité de leurs structure. Elle trouverait plutôt son explication dans le fait que

(8) "Food and Dietetics", 4th Edition, by ROBERT HUTCHISON, page 29. William Wood & Co., New-York.

l'organisme de ces patients fonctionnait plus normalement et que la réaction de leurs humeurs était devenue neutre ou à tendance alcaline sous le traitement de la vitamine D.

Reserves de "Ca et Ph" non augmentées — par la vitamine D.:

Fait indéniable, la vitamine D. joue un rôle considérable dans l'assimilation des sels de chaux par l'intestin. Il paraît évident, cependant, après les expériences de BAUER, MARBLE & CLAPIN (9), que l'administration de vitamine D. chez un sujet dont les réserves de calcium et de phosphore sont normales, n'augmente pas les réserves de cet individu. Le sujet renvoie moins de chaux et de phosphates avec les fèces, parce que l'absorption du calcium et du phosphore se fait alors plus abondante par le tube digestif. Il en reste, par conséquent, moins à éliminer par voie rectale. Par contre, l'excrétion urinaire devient plus considérable. Ce que l'intestin a absorbé en plus, le rein l'élimine.

Hypervitaminose D. et decalcification:

Cantarow (10) prétend qu'un excès de vitamine D. (hypervitaminose) augmente, dans le sang, le pourcentage du calcium ou des phosphates ou des deux à la fois. Ce phénomène se produit même si l'on soumet le patient à un régime déficient en calcium et en phosphore. Dans ce dernier cas, l'augmentation du calcium et des phosphates dans le sang, s'opère, en toute évidence, au détriment du système osseux qui demeure, avant tout, une réserve de sels de chaux pour l'organisme. Ainsi, une hypervitaminose D. peut donner de l'hypercalcification, lorsque le régime alimentaire est déjà riche en calcium et phosphore; et une décalcification du système osseux, lorsqu'il y a carence de calcium et de phosphates dans l'alimentation.

Ces observations ont été confirmées par HESS, BENJAMIN & GROSS, JONES, RAPOPORT & SHELLING (11).

Avec ces notions bien présentes à l'esprit, on ne peut plus se contenter de faire ingérer à ses patients des unités de vitamine D. sans se préoccuper de l'alimentation calcique et phosphorée, et de l'assimilation de ces constituants du système osseux.

LE RACHITISME

L'avitaminose D. ne cause pas nécessairement le rachitisme:

SHERMAN & PAPENHEIMER (12) ont démontré que le rachitisme ne se produit pas en l'absence de la vitamine D., si la proportion de calcium et de phosphore dans l'alimentation est conservée aussi près que possible de la normale. La véritable fonction de la vitamine D. serait donc de corriger l'absorption et l'assimilation du calcium et du phosphore quand leurs proportions dans le régime alimentaire ne conviennent pas. Le terme "vitamine anti-rachitic" serait donc impropre pour désigner la vitamine D.

Dès 1924, le Dr Lucien de Gennes (13) démontrait que le rachitisme était dû à un défaut d'assimilation du phosphore par l'intestin. Il prouve que les enfants nourris au sein fixe 60% du phosphore ingéré, tandis que ceux nourris à la bouteille n'en fixe que 50%. Il ne voit pas là une cause primordiale du rachitisme mais un facteur étiologique essentiel. L'hypocalcémie n'est pas constante chez le rachitique, observe-t-il. Bien souvent, la calcémie est normale. De plus, elle n'est pas modifiée par l'ingestion de sels de calcium. Si on les injecte par voie veineuse, l'hypercalcémie n'est que passagère.

(9) "Calcium Metabolism and Calcium Therapy", CANTAROW, 2nd edition, 1933, p. 28. Lea & Febiger, Philadelphia.

(10) Opus Cit. CANTAROW, p. 29.

(11) Opus Cit. CANTAROW, p. 29.

(12) Opus cit. BRODERICK, p. 45.

(13) "Le Traitement de Rachitisme" par le DR LUCIEN DE GENNES, Interne, médaille d'or des hôpitaux de Paris (1924). Editeur: Amédée Legrand, Paris.

Par contre, dans le rachitisme, le phosphore dans le serum est inférieur à la normale: hypophosphatémie.

Le Dr de Gennes était enclin à croire que le sympathique agissait sur les glandes endocrines et que leur mauvais fonctionnement pouvait causer les troubles du métabolisme phosphoré. C'est précisément ce que prétendent, aujourd'hui, McDonagh et Broderick. Ils voient dans la décalcification et dans la carie, l'action prépondérante du sympathique sur le para-sympathique.

On peut produire le rachitisme avec une alimentation où sont réunis, en juste proportion, tous les éléments nécessaires à la vie, puis en y ajoutant un excès d'hydrates de carbone: du pain, des farineux, des céréales. Ce qui laisse croire qu'une alimentation acidifiante peut nuire à l'assimilation des sels de phospho-calciques.

Le problème de récalcification de l'organisme — on peut le constater à la lumière de ces expériences — ne saurait trouver toujours sa solution par la simple administration de la vitamine D. Cette thérapeutique reste dépendante de plusieurs autres facteurs. C'est une simple maille dans une chaîne.

Chez l'individu adulte normal, l'emmagasinage, la fixation du calcium est pratiquement nulle. L'élimination égale sensiblement l'absorption, et elle se fait par le rein et par l'épithélium du gros intestin, comme l'a démontré de façon conclusive, BERGEIN (14).

Rapport normal entre le calcium et le phosphore dans l'alimentation:

La quantité requise de calcium et de phosphore varie avec l'âge et la condition du patient. Ainsi durant la croissance ou pendant la grossesse et la période de lactation, l'organisme demande plus de calcium que de phosphore ($14\frac{1}{2}$), tandis qu'à l'âge adulte, il lui faut plus de phosphore que de calcium.

Ainsi, à l'âge adulte, 1.0 gramme de calcium par jour suffit. Pendant la grossesse et la période de lactation, il est nécessaire d'accroître la dose à 1.5 gramme par jour.

Après des études poussées, on en est venu à recommander de donner à l'enfant, sans tenir compte de l'âge ou du sexe, 1.0 gramme de calcium, chaque jour.

Pour le phosphore, Stiebeling & Phicard préconisent 1.32 gramme par jour pour adultes de 20 ans et plus, ainsi que pour la jeunesse de 13 à 19 ans. La dose diminue quelque peu avec l'âge à partir de 12 ans, pour s'arrêter à un minimum d'un gramme par jour.

Vitamine D. monopolisée:

Il est un scandale que médecins et dentistes devraient tous connaître. La vitamine D. a été monopolisée sur tout ce continent par la "Wisconsin Alumni Research Foundation", organisation coiffée, comme vous pouvez le constater, d'un nom emprunté partiellement à une grande université américaine. Cette organisation a breveté le procédé Steenbock, pour la fabrication de la vitamine D. appelée aussi la vitamine des pauvres, parce que sa carence se manifeste surtout chez les indigents, comme vous le savez. Au moyen de ce brevet, cette organisation a contrôlé la vente de la vitamine D. dans toute l'Amérique du Nord.

Personne n'aurait osé douter des excellentes intentions de cette entreprise au nom si imposant. L'auréole d'honnêteté qui semblait envelopper les fondateurs de cette oeuvre de "bienfaisance et de recherches scientifiques", paraissait être une garantie pour le public. Des circonstances imprévues ont, toutefois, provoqué l'intervention du gouvernement de Washington; devant les Cours de Justice, le scandale a éclaté et les brevets ont volé en éclats. On avait monté toute cette façade scientifique et

(14) Opus cit. CANTAROW, p. 30.

($14\frac{1}{2}$) "Human Nutrition", p. 196, United States Government, Printing Office, Washington, 1940.

philanthropique pour dissimuler une savante hypocrisie et favoriser un commerce d'exploiteurs.

Par ce moyen, on extorquait injustement des prix exorbitants pour la vitamine D.; on limitait sa production à des favoris, (ici, je pourrais vous raconter des faits avec force détails pour vous illustrer ce "racket" formidable exercé au détriment des deniers et de la santé du peuple).

On réglementait la dose de vitamines dans chaque capsule, ou pilule, non pas pour le bien du patient, mais pour accroître les profits.

Quiconque désirerait se renseigner davantage sur cette honteuse exploitation des pauvres, n'a qu'à écrire au "Government Printing Office, Washington" et demander la brochure:

"MONOPOLY & CARTEL PRACTICES

Vitamine D.

Scientific and Technical Mobilization

Part 6 (1944)". Prix . . . 0.30 cts.

ou encore se procurer le récent livre de Wendell Berge, Assistant Procureur général des Etats-Unis. Son volume a pour titre:

"CARTELS

"Challenge to a Free World". (Prix . . . \$3.25)
publié par "Public Affairs Press, Washington 8, D.C."

PHILIPPE HAMEL,

6 d'Aiguillon, Québec.

(à suivre)

L'Antichambre de la Maladie

Par le Docteur F. WATRY

Président la Ligue Belge d'Hygiène Dentaire.

Après avoir évoqué le mal examinons les remèdes.

Le stomatologiste et le dentiste se trouvent devant une tâche qui, aussi paradoxal que cela puisse paraître, est, à la fois passionnante et décevante.

Ils puisent les mêmes motifs d'intérêt passionné que le chirurgien dans cette satisfaction que procure l'habileté technique et les perfectionnements des procédés à leur disposition peuvent leur valoir des jouissances d'artistes.

Mais ils connaissent aussi cette amertume d'arriver trop tard, et de se trouver contraints à faire au feu une part qu'ils estiment souvent trop large.

Cette impression décevante est hélas aussi dominante sur le plan d'assistance sociale ou la thérapeutique conservatrice se heurte à des obstacles quasi insurmontables dans l'ordre actuel des choses. Cette thérapeutique est en effet toujours longue et ne peut s'accorder avec les latitudes, les loisirs dont disposent les intéressés.

D'autre part, même ramenée aux proportions d'une indemnisation modeste, elle est très dispendieuse et sa réalisation systématisée se trouve prise dans l'étau d'un dilemme. Si une organisation parfaite réussissait à amener au praticien la totalité des malades intéressés, le malheureux se trouverait écrasé, débordé, par une tâche dépassant hors de toute proportion ses possibilités. Si par contre, on limite l'intervention en se

basant sur ces deux facteurs positifs que sont les possibilités budgétaires et les possibilités de rendement du praticien, le résultat sera totalement insignifiant au point de vue protection sociale.

Vous n'êtes pas éloignés de songer à cet instant que la voie dans laquelle je vous entraîne paraît sans issue. Je fais en effet le procès d'une affection à caractère destructif d'un des organes les plus importants de la vie végétative; affection d'une fréquence au moins égale à celle des plus importantes maladies sociales et je dresse en même temps un procès-verbal de carence ou tout au moins d'insuffisance de la thérapeutique.

Il est bien entendu que je n'envisage pas ici le cas individuel se confiant au praticien. Il est certain que quelque soit l'état de délabrement de votre système dentaire, vous trouverez chez votre dentiste la possibilité d'une restauration esthétique et fonctionnelle, satisfaisante. Faisons cependant cette réserve que, quelque soit le perfectionnement de la technique et l'habileté du praticien son oeuvre ne sera jamais qu'une substitution artificielle grossière de l'organe naturel.

Mais le point de vue qui nous intéresse ici est surtout celui de la collectivité, la solution que nous cherchons est d'application sociale.

Je n'hésite pas à dire que, sur ce terrain, dans les conditions actuelles nous sommes impuissants à combattre ce fléau. Aussi tous nos efforts doivent se consacrer à la prophylaxie, à la prévention, à la thérapeutique précoce.

Je faisais tout à l'heure allusion à l'exemple allemand. Eh bien le plan d'organisation de cette campagne victorieuse reposait sur un principe à première vue décevant puisqu'il considère la génération infantile en cours d'études scolaires comme sacrifiée, l'abandonne pour se vouer exclusivement à celle qui entre à l'école. Cette solution à première vue impitoyable et inhumaine s'est, à l'application, révélée comme la seule susceptible de réaliser intégralement la protection sociale dans ce domaine.

L'organisation de la prévention de la carie doit s'appuyer sur une connaissance aussi exacte que possible de son étiologie. Le cadre de cet exposé ne me permet malheureusement pas de longues digressions dans cette voie intéressante, et je dois me borner à évoquer les éléments essentiels qu'on retrouve d'ailleurs dans toutes les recherches des causes de maladies: les déficiences du terrain, et les agents pathogènes.

La résistance du terrain se traduit dans le domaine dentaire par une bonne calcification et une intégrité aussi parfaite que possible de l'émail protecteur.

Si nous passons aux agents proprement dits de la craie, nous aurons quelque peine à nous faire une opinion, tant sont nombreuses les théories proposées, depuis la théorie chimico-parasitaire classique jusqu'aux multiples explications plus modernes, et moins généralement admises.

Ces dernières, si séduisantes qu'elles puissent être font parfois un peu perdre de vue des éléments, moins scientifiques peut-être mais dont l'intervention ne peut être mise en doute.

Au premier rang de ceux-ci il convient de placer ce que nous appellerons la paresse masticatoire. Cette paresse masticatoire peut être la conséquence d'une dysmorphose comme nous l'avons vu plus haut mais elle est bien plus fréquente car elle s'observe aussi chez des individus à la denture normale, en parfait état de fonctionnement. Elle n'est autre qu'un des méfaits de la civilisation nous imposant un régime alimentaire qui semble s'être donné comme but de diminuer le plus possible l'acte physiologique pour lequel la nature nous a donné des dents. Le code de civilité et de "belles manières" s'en mêle d'ailleurs en prescrivant comme contraire à la bonne tenue à table, la gymnastique masticatoire. Ah comme la physiologie et la santé s'accommoderaient mieux de cette franche activité des meules dentaires que l'on retrouve chez nos amis les animaux.

Mais non, nous êtres supérieurs et civilisés, avons appris à ingérer aussi discrète-

ment que possible les mets préparés d'ailleurs de façon à réduire au strict nécessaire cet acte inélégant qu'est la mastication.

Entretiens, inexorables, les lois naturelles jouent: l'organe négligé s'atrophie et voit diminuer progressivement sa résistance aux agents chimiques et parasitaires qui ont trouvé dans la bouche un habitat idéal.

Mais l'ennemi de l'intégrité dentaire, prêt à profiter de la moindre défaillance n'est pas seulement extérieur, il sait aussi prendre les voies internes de l'organisme: pour frapper de préférence des groupes dentaires homologues. Ce sont les caries toxiques systématiques, les courants de décalcification suivant les grands syndromes débilitants.

Mais je n'irai pas plus avant dans cette recherche de l'étiologie de la carie. La très brève reconnaissance que nous avons faite dans ce domaine nous a déjà fourni quelques indications à valeur démonstrative suffisante: fléchissement de résistance de la dent, agents chimiques et flore microbienne, du milieu buccal; paresse masticatoire. Voilà cette triade étiologique à laquelle s'oppose automatiquement la triade base de la prévention: assurer la calcification dentaire, l'hygiène buccale, le respect d'une physiologie normale par la diététique et la mastication rationnelle.

Mais la prévention doit être précoce. L'est elle assez à l'âge scolaire? Certes non, puisqu'à cette époque "la dentition de lait est déjà près d'avoir terminé son rôle et que les couronnes des dents définitives sont déjà formées. Il faut remonter plus haut encore, et disons-le de suite, au risque d'éveiller le scepticisme: la prévention dentaire doit commencer à la période prénatale.

Le vieux-dicton "Un enfant, une dent", ne manque pas totalement de base scientifique, et il faut en retenir que la future maman doit disposer d'une quantité de calcaire suffisante pour armer bébé sans épuiser inutilement sa propre réserve. Les troubles dentaires pendant la grossesse devront donc être considérés, non seulement au point de vue de la mère mais encore au point de vue de l'enfant. Dès la naissance l'enfant vit en quelque sorte pour son propre compte, et il ne convient pas d'oublier qu'il naît avec ses germes dentaires en pleine calcification. Son régime alimentaire, qu'il soit naturel ou artificiel exerce sur ce phénomène une influence extrêmement sensible. On peut même dire que la première année de la vie est décisive au point de vue du sort de la dentition future. Vous avez certainement observé ces enfants aux dents ratatinées, rabourgies.

Cette aplasie dentaire est le plus souvent la signature des troubles alimentaires du premier âge, et la dent qui est le plus souvent victime de ces troubles est la première molaire définitive.

Dès le huitième mois l'éruption dentaire commence. Un préjugé incroyablement tenace veut qu'on accorde pas d'importance à la dentition de lait. Il porte sa lourde part de responsabilité dans les misères dentaires de l'âge adulte.

C'est à ce moment que les parents commencent à initier bébé à cette paresse masticatoire à laquelle nous avons fait allusion. Un grand pas sera fait dans la lutte contre le fléau de la carie lorsqu'on aura introduit dans l'éducation infantile l'observation de cette règle généralement ignorée et dont cependant Monsieur de la Palisse pourrait à bon droit revendiquer la paternité: "Quant on a des dents, c'est pour s'en servir".

Puis vient le moment critique où la dentition de lait va connaître l'amertume de cette loi si humaine: "Place aux jeunes". Celles-ci de plus en plus à l'étroit à l'intérieur des maxillaires bousculent leurs devancières et, pour en avoir raison, leur coupent en quelques sorte les vivres en supprimant leurs connexions vasculaires. En même temps les dents de lait auront elles aussi connu les atteintes de la carie. Qu'ils sont donc rares les parents qui s'en soucient: Qu'ils sont rares aussi avouons-le, les praticiens qui ont pour la dentition de lait les mêmes soins que pour les dents définitives.

Erreur profonde des uns et des autres, car la période de transition entre la dent de lait et la dentition définitive est la plus délicate, la plus riche en menaces tant au point de vue irrégularité qu'intégrité du système; c'est la période où un contrôle rigoureux et régulier peut décider du sort futur de la dentition de l'enfant, il est d'autre part une vérité qu'il serait vain de nier: trop de praticiens n'ont pour la dentisterie infantile qu'un goût très mitigé; trop souvent leur attitude est une expectative qui n'est même pas toujours armée et cette semi-abstention est en réalité motivée par les difficultés qu'ils éprouvent à soigner l'enfant en bas âge; erreur psychologique profonde d'ailleurs car l'enfant devient avec un de patience le patient le plus docile, le plus compréhensif et celui qui donne au praticien le plus de satisfaction, parce qu'il n'aura pas, comme chez l'adulte, cette impression décevante d'arriver trop tard.

Jusqu'à l'âge scolaire d'ailleurs, l'intervention du spécialiste peut être presque exclusivement prophylactique et basée sur cette triade que nous avons définie, à savoir: le contrôle de la résistance calcaire accompagné du dépistage de tout atteinte à l'intégrité dentaire ou de tout point faible de nature à provoquer ces atteintes, en deuxième lieu surveillance d'une diététique remplissant toutes les exigences physiologiques du système masticatoire. Enfin, éducation hygiénique progressive, adaptée à l'âge de l'enfant et au développement de ses organes.

J'ai dit que c'était là la tâche du spécialiste, mais je me hâte de préciser qu'il ne faut point donner à ce mot un sens restrictif dégageant le médecin non stomatologiste de toute participation à la surveillance et de toute responsabilité. Nous setimons au contraire que cette prophylaxie précoce incombe plus au médecin de famille et au pédiatre qu'au stomatologiste et au dentiste; tout au moins aussi longtemps que les parents ne songeront à ce dernier que lorsqu'il est trop tard, lorsque la carie a déjà fait ses ravages.

La prophylaxie bucco-dentaire infantile est avant tout une question de Médecine Préventive. Avec l'âge scolaire et l'éruption de la dentition définitive, la tâche du praticien spécialiste se précise. Nous avons dit plus haut que dans l'état actuel des choses, elle dépasse toutefois, dans des proportions qui en font une utopie, à la fois les possibilités du praticien et les possibilités budgétaires des Administrations. Voulez-vous un chiffre? en voici un de caractère particulièrement éloquent: dans les supputations budgétaires d'une clinique dentaire telle que Bruxelles pourra en posséder bientôt grâce aux libéralités de Monsieur Eastman, les frais annuels lorsque les services fonctionnent à plein rendement sont évalués à deux millions 1/2 de francs belges!

Est-ce à dire que les possibilités de réalisation se verront réservées aux seules communes bénéficiaires de telles libéralités? Non. (*à suivre.*)



Courtesy National Museum of Canada

SMOKING A MOOSE SKIN IN THE PROCESS OF DRESSING IT FOR WEAR

"SOME countries, like some people, are changed almost overnight by the impact of a new culture. No such change has taken place at the bottom of James Bay. Here, both the country and the people are very much as they were two hundred and seventy-five years ago when Governor Charles Bayly first sailed along the coast and saw that it was low lying and wooded.

"There have been changes, of course; that was inevitable. Changes in clothing, in weapons, in accessibility of various products of the white man's skill. But in most ways the people are the same; they think the same thoughts and live the same lives, hunting, trapping, fishing; gathering berries and roots for food and medicines; camping and canoeing on the same lakes, rivers, and sea-shores that they have frequented for so many generations. How many? Nobody knows.

"They were already there when, about 1660, an Iroquois invasion fell on them and wiped out hundreds, but we have no knowledge of them before then for they leave few, if any, permanent traces of their occupation of the land and no archaeologist has yet explored their ancient village sites."

—by Douglas Leechman in *The Beaver*



HARVEY W. REID, D.D.S.
TORONTO, ONTARIO

President, Canadian Dental Association.
Vice-President, Board of Royal College of Dental Surgeons of
Ontario.

Member of Senate, University of Toronto,
Past-President, Academy of Dentistry, Toronto.
Chairman, Ontario Dental Advisory Committee
on Rehabilitation

Member of Executive, Canadian Dental Hygiene Council.
Served overseas C.A.D.C.—World War 1.
Member of Kiwanis Club of Toronto.

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ADDRESS OF THE PRESIDENT

of the Canadian Dental Association*

By HARVEY W. REID, D.D.S., Toronto, Ontario

IT IS with genuine embarrassment that I rise to acknowledge my installation as President of our National Association. You have, Dr. Rooney, been much too generous in your remarks concerning me but in spite of that, may I thank you for the stimulation of watching you do a job in your accustomed efficient manner. It has been a privilege to serve the past two years during your term of office as our retiring President. We, the Executive and Board of Delegates, have valued highly your deep insight into the affairs of the Association; your unending patience and your ability to really put on the pressure when the occasion demanded. The Association has made steady progress under your guidance and has become a real force in our National Dental life. Art, I shall lean heavily upon you throughout the coming year and I hope that the dentists of Canada appreciate what you have done as much as I do.

If I may be pardoned for a personal reference, there are two occasions that stand out in my life when I have been extremely proud and really afraid. It is a strange quirk of fate that these two occasions should have been in this very room in this hotel. In my senior year at College, two of us conceived the idea of using the hockey talent at the Dental Faculty and entering a team in

the O.H.A. As a reward, I guess, for my ignorant courage I was appointed "Manager." The rest is history. We went on to win the Ontario championship and then challenged for the Allen Cup which had been held out here in the West for many years. We won the Cup, as much perhaps to our surprise as everybody else's. That night a huge banquet was held in this room and I as Manager, was chosen to reply to the toast to "the Dentals"—a team made up of dental students. Among the speakers was the Premier of your Province, the Mayor of your city and others of that calibre. To say that I, a student, in such company was nervous is a superlative of understatement. The other occasion is of course today, when I stand before you privileged to serve as your President.

It is a high honour that you have bestowed upon me and although deeply sensible of this honour I am not unmindful of the heavy responsibilities that are entailed. You have presented me with a strong Executive Committee, an efficient and tested Board of Governors, an energetic and wise Secretary, and a fine selection of Committee Chairmen. It is the knowledge that I can count on their assistance, their advice and loyal support, that makes it possible for me to accept the responsibilities that come with the of-

*Presented at Winnipeg, Manitoba, June 19, 1945.

fice. On behalf of all those who shall direct the affairs of your Association for the ensuing year, I bespeak the interest of everyone of you and may I hope that we shall be all found worthy of your support.

This is a time of great thankfulness that the order "Cease-Fire" has rung out across the blood-stained battle-fields of Europe. With those of you whose sons and daughters will soon be returning, we rejoice. With those of you whose dear ones will not return, we ask to share your pride and silently offer our sympathy.

It is with keen anticipation that we all await the return to civilian practice of the members of the Profession in the Armed Forces. Many of them have several years of service to their credit and their retirement should be facilitated at the very earliest possible moment. It is, I believe, the intention to return large numbers of the army personnel to civilian life in the next few months. The demand for dental service from these, if we are to judge by those already demobilized, is going to be tremendous. With the present civilian demand far exceeding the capacity of the civilian dentists to supply, and with this increased load to fall on their shoulders, it behooves the military authorities to move with despatch and a minimum of red tape to make these men available to alleviate this critical national problem.

As this is the afternoon of your golf tournament and most of you will be or should be keeping your heads down, I have chosen as the subject of my brief remarks to you "Heads-up" and I mean just that. "Heads-up" with pride. The record of the members of the dental profession throughout these war years has been a most enviable one. The men serving in the Corps have done an excellent job, at times under distressing and dangerous conditions, but at all times adhering to the highest ideals of the true professional spirit of service to others. In the heat and flies of North Africa; in the mud and filth of Italy; throughout the blitz and

midst the bombs and devastation of the old land; across France and Belgium and inundated Holland and into Germany itself, the name of Canadian dentistry has been carried high. We salute those men and it is my hope that their record of achievement will be written that all may read. Then there are those who, not of their own choice, have served so well in areas not so spectacular such as Canada itself, but whose contribution has been a mighty one.

We, as an Association and as individuals must not forget these men. Every effort must be made to make their return to civilian life as easy as possible. Above all we must show them that we appreciate the sacrifices they have made.

Let us not forget what the civilian dentists of Canada have done throughout this period when sorely depleted in man-power. Although numerically there were 28% of the dentists of Canada in the Armed Forces, we must not forget that the military authorities accept only the younger men who are physically fit. If you deduct those who are able to work only part time, those who are part time teachers, full time teachers, those who are part time or full time on the staffs of school clinics and hospitals, I venture to estimate that 45-50% of the productive power of the dental profession of Canada was on military duty. By working exceedingly long hours, foregoing vacations, employing ancillary services and by other means of improvising, the civilian demand for dental service has been met tolerably well. We must not forget the tolerant, considerate attitude and the willingness to co-operate on the part of the public. On the whole they have been wonderful and for the dentists of Canada, I say, thank you.

Surely the record of our profession throughout these trying years has been such that we can hold up 'our head' with justifiable pride.

And now of the future! "That the profession is at the cross-roads" is an expression often heard. Professions

like individuals are continually coming to cross-roads. That is not important but the road that is taken is very important. The profession, to progress, must keep straight on. We must not be pushed off into the side-roads, attracted by ill-conceived and glittering panaceas that, like the rainbow, we, in our experience, know, does not yield the pot of gold. The profession of dentistry has come a long way. Everyone of you should be intensely proud of your profession, recognized as it is, as a full fledged member of the Health Professions. I hope there is no one who would hang his head because he is a dentist. Gentlemen, with your heads down you can't see the horizon. So I say to you "Heads-up" and let's go. The future for our young profession and we are young as professions go, is full of opportunity. We have gradually built up the scientific and biologic back-ground of our training. This must be maintained. It would be a sorry day for the people of Canada if to meet some emergency, or for *any* reason, this scientific training was eliminated from the courses of those, in whose hands would be placed the responsibility for maintaining the dental health of the public.

The Educational Committee of the C.D.A. made up of the Deans of the five Dental Schools and representatives from the other provinces, spent Monday and Tuesday of last week in session here. The whole question of undergraduate curricula was thoroughly discussed and recommendations made that will assist all these schools in raising even higher the standard of instruction imparted to students about to enter the profession. Methods and means were devised of meeting the demand for post-graduate and refresher courses for dental officers on retirement from the services. These are made available through the Dept. of Veterans Affairs; and representatives from that Dept. and from the Dept. of Defence sat in on these discussions.

Due to the efforts of the C.D.A. Committee on Dental Research there

was established last month an Associate Committee on Dental Research in the National Research Council at Ottawa. This is a notable achievement and augurs well for dental research in Canada. It makes available funds and facilities not previously at the disposal of the profession. There is no dearth of projects but at the moment there is a scarcity of personnel. Plans have been made to train dental research personnel but this takes time, so may I counsel you not to expect results too quickly. May I be permitted this observation—"Unless predicated on a program of research and public health education in the hope of lowering the incidence and the control of dental diseases, any Health Insurance Plan will of necessity bog down the profession and will become intolerably costly."

The two activities previously mentioned are but a small portion of those carried on by your Association and have been cited because they are of recent innovation and have such possibilities of enhancing the scope of our services to the public.

There are many in our profession who face the future with a certain misgiving. The late President Franklin D. Roosevelt in his first inaugural address at a time when his country was in the depths of depression, when the banks were all closed and gloom shrouded the land, said, "We have nothing to fear but fear itself"; I believe this to be true of our profession today. To a very large extent our destiny lies in our own hands, if we but realize it. Our attitudes to and our realization of our responsibilities to the public we serve can mean so much. Our ability and desire and fortitude to co-operate as a harmonious national unit can have tremendous influence on the future trend of dental practice in Canada.

I am told by a friend of mine that the word "crisis" in the Chinese language is represented by a combination of two characters—the first character being the representation of the word

"danger" and the second "opportunity." While fully aware of the many dangers that do and can beset our profession and prepared to meet them fearlessly, I prefer to think and dwell on the wonderful opportunities that are offered to the profession of dentistry in the field of service to the people of Canada.

Let us be realists, and throughout the coming year, may the words of Carlyle as quoted by Sir William Osler in his "A Way of Life" guide the thoughts and actions of your representatives; "Our main business is not to see what lies dimly at a distance but to do what lies clearly at hand."

Before the war it was said, with some authority, that the average practice earned the surprisingly low figure of £400 per annum gross. This may appear a poor prospect, yet it is not an impossible estimate taking the country as a whole. Against that, at the other extreme, I have in my possession the ledger of a man who was brave enough, or fool enough, to charge seven guineas an hour for his time. No account he rendered was for less than six guineas; most amounted to fifty or sixty, while one patient paid him eleven hundred pounds in a single year. What is commonly called a good patient! Needless to say, that was in the distant boom days of 1925, and obviously he had very few patients upon his books, for there are few who are prepared to meet dental expenses in that proportion. His was a case of the higher the fewer—the higher the fees the fewer the patients. Neither is his an example I would suggest following, for, apart from the insecurity of such luxurious standards, a dentist must possess certain remarkable ways to command fees of that type. Between this extreme instance and the estimated average of £400 a year, I am certain there is, and will be for years to come, an average stratum where comfortable livings may be earned by any man prepared to put as much into dentistry as he hopes to get out of it.—Edward Samson in Guy's Hospital Gazette.

"The process of thinking draws the blood from the feet to the head," an educator informs us. This explains perhaps why, in so many cases, if you think twice about a proposition you get cold feet.—Atlanta Journal.

Oliver Wendell Holmes once summed up the fallacy of a socialized state in these words. Said he, Everything would be common there except common sense.

Those who would give up essential liberty to purchase a little temporary safety deserve neither liberty nor safety.

—Benjamin Franklin.

I hope to heaven we are not fighting this war to make a world dedicated to the cause of commonness.

—Winston Churchill.

"The dentists who have the best practices give the public the impression of being scholarly and cultured."

INTERCEPTION OF MALOCCLUSION

By STEWART A. MacGREGOR, D.D.S., Toronto, Ontario.

THE early pioneers in dentistry are to be congratulated on the time and efforts spent on the many improvements brought forward for the betterment of restorative dentistry. Restorative dentistry has served humanity well both from the standpoint of relief of pain and from the embarrassment of going without teeth.

However, when one is reminded of statistics that show that dental disease is occurring five times faster than it can be taken care of, it seems reasonable to conclude that the time has come when we should turn our attention at least in part from improvement of technique to the study of cause and control.

Too many of us in the past, when examining the mouth of a child, have been too interested in the charting of cavities to give any thought to those factors which have to do with influencing normal growth and development.

When one studies the statistics on the early loss of deciduous teeth and the influence of this loss on the growth of the jaws and alignment of teeth, one can readily see why periodontal disease is so rampant, yes, and artificial teeth so numerous.

PREVENTION

It should be the aim and desire of every practising dentist to prevent deformity and create conditions in the mouth favourable to normal growth and development. Many of us have taken an apathetic attitude towards this phase of dentistry admitting no responsibility on our own part but shifting the entire problem to the shoulders of the orthodontist. This to my mind is a great tragedy for in the vast majority of cases the orthodontist does not see the child until the damage is done and an extensive treatment is necessary. It seems to me that the

wisest way to cope with such a situation would be to teach such preventive measures as space maintenance, etc., in the operative department of our dental schools. In this way the student would be impressed with his responsibility in this phase of our work.

A study of Dr. Willett's¹ survey of 1,000 children from 17 months to 10 years can hardly help but convince us that the intercepting of malocclusion is a phase of our work in which the general practitioner can play an even more effective role than that of the orthodontist. Dr. Willett's report is as follows:

60% had caries of deciduous teeth and defective fillings.

29% had premature loss of deciduous teeth (total No. of deciduous teeth lost -893).

8% had caries, defective fillings, and premature loss of deciduous teeth as the direct cause of malocclusion.

52½% had caries, defective fillings, and premature loss of deciduous teeth as the contributing cause of malocclusion.

61% showed evident need of pre-school dental attention.

In the light of this report it should seem quite clear to us all that early diagnosis of dental caries in the pre-school child together with proper treatment thereof is the first step in the preservation of normal occlusion. Early diagnosis of dental caries can

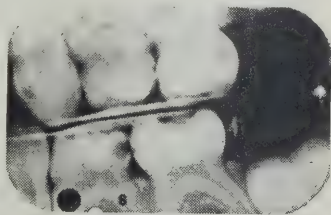


Fig. 1

best be done through the medium of bite-wing x-ray. Fig. 1 shows extensive caries disclosed in a child of 3½ yrs. of age.

Dental caries having been revealed as in Fig. 1, our next step towards the goal of normal occlusion should be the carrying out of proper operative procedure on all deciduous teeth with the

aim of maintaining them in the mouth until normal time of exfoliation. The operator should design his cavity preparation and choose filling material, keeping in mind that when the work is completed at three or four years of age, the restoration must last for seven or eight years. It has been my custom to use silver amalgam as a re-

STEPS IN CAVITY PREPARATION

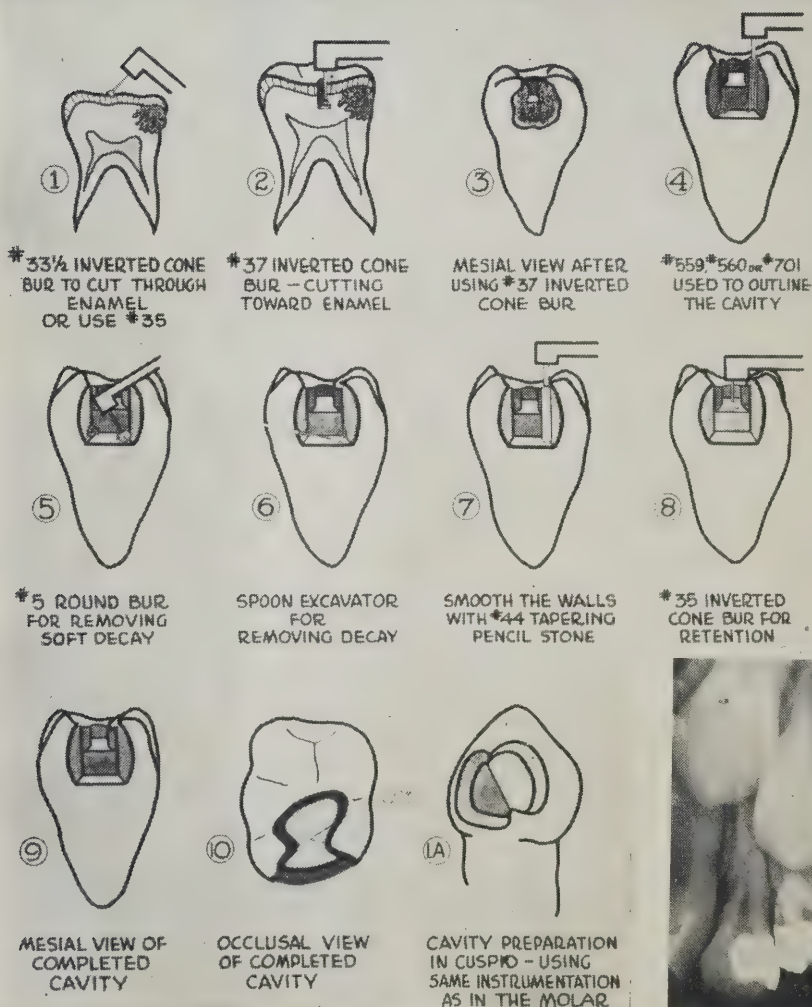


Fig. 2



Fig. 3

storative material. Wagner stainless steel matrix material is purchased in sheets and the matrix is cut about $2\frac{1}{2}$ to 3 mm. in width and inserted in an ivory matrix retainer No. 8. When all the decay is removed, the cavity is sterilized with either phenol or a solution of ammoniacal silver nitrate reduced with eugenol. If pulp capping is necessary, jodo formagen is inserted and then covered with a thin mix of Denco temporary cement (in the U.S.A. —Ames). All teeth with putrescent pulps as well as all infected roots are removed and space maintainers constructed. Frequently I have noticed that when a child's infected tonsils have been removed the parents were at a loss to know why the child still had a temperature and no desire to eat. On examining such a child, one very often finds infected teeth being left in to hold the space. In the first place, they do not hold the space and in the second, such poor technique surely does not do much for us in the way of gaining respect from our medical confrères. However I am not putting all the onus on the dentist in such cases for quite often I have had physicians remove infected tonsils but ignore infected teeth.

CAVITY PREPARATION

Fig. 2 shows the various steps in cavity preparation. Fig. 3 shows radiograms of amalgam fillings in deciduous cuspid and first deciduous molar. In

Fig. 2, the cuspid preparation recommended by Charles Sweet² is a most satisfactory preparation for an amalgam restoration in a cuspid. A restoration as seen in Fig. 4 illustrates how easily an overhanging filling could produce a malocclusion in this segment of the jaw. It also illustrates how necessary it is in some cases to slice the mesial of the second deciduous molar to allow the first bicuspid and cuspid to erupt normally. If the second deciduous molar in this case were removed in preference to slicing, in all probability the second molar would erupt before the second bicuspid thus pushing the six year molar forward and crowding the second bicuspid.

LOSS OF DECIDUOUS TEETH

It will be noticed that in Dr. Willett's survey, 29% of the children had prematurely lost the deciduous teeth, the total number being 893. I can readily see how such would be the case. For several years I have made a survey in two school sections consisting of homes of middle and higher bracket incomes. One of these schools had 1,595 children and the other, some 1,250 children. The premature loss among these children corresponds fairly closely to that found by Dr. Willett. In one school, three space maintainers had been constructed and the other had a total of six. This, and other observations I have made in talking to parents, leads me to believe that our Dental

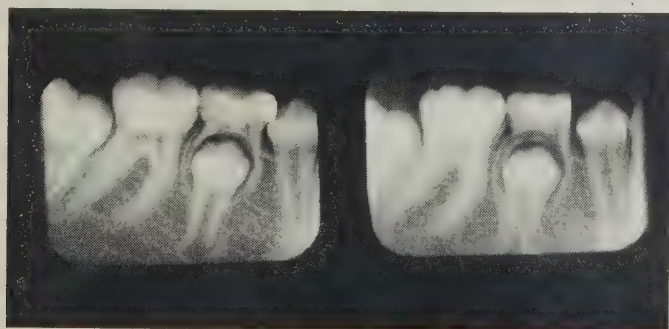


Fig. 4

Public Health committees have educated the public to a point well in advance of our own thinking in this field. Drain and Cheyne³ did considerable work on the premature loss of deciduous teeth and their report is as follows:

Of 396 patients in the 4 year old age group, 45 or 11% had extractions. For these 45 children, 81 teeth were extracted of which 57 or 70% were deciduous molars. Of these 57 molars, 20 or 35% were lower second deciduous molars.

Of 693 patients in the 5 year age group, 139 or 20% had extractions. For these 139 patients, 292 teeth were extracted of which 241 or 85% were deciduous molars. Of 241 deciduous molars, 64 or 26% were lower second deciduous molars.

Of 878 patients in the 6 year group, 268 or 30% had extractions. For the 268 patients, 592 teeth were extracted of which 454 or 76% were deciduous molars. Of these 454 deciduous molars, 181 or 39% were lower second deciduous molars.

In the 7 year old group, 1,058 patients were examined of which 368 or 34% had extractions. For these 368 patients, 816 teeth had been extracted of which 512 or 62% were deciduous molars. Of these 512 deciduous molars, 181 or 34% were lower second deciduous molars.

Reference is also made to a survey³ of 5,000 children carried out by Dr. Don C. Lyons of Jackson, Mich. It was found that in children between the ages of 5 and 12 years where malocclusion was noticed, 65% was associated with early loss or premature extraction of deciduous teeth with no attempt made to retain the space.

One can readily see from the above that more emphasis needs to be placed on this phase of our work. Speaking of premature loss of deciduous teeth, Dean A. D. A. Mason, of the Faculty of Dentistry, University of Toronto, has made this statement, "The retention of the second deciduous molar is one of the most important factors in the

influence of the development of normal occlusion." I thoroughly agree with this statement. For many years dentistry has had a theme song, "save the six year molar." This motto has served a purpose in the past but I am sure that after reading Drain and Cheyne's report you will agree with me that it is time that we got a new motto, yes, indeed, one that will awaken the dentist to his responsibility with respect to the child of three years. It is my firm belief that, if we were to stimulate every dentist in America to take a keen interest in three year old children, few six year molars would be lost. I feel that our education to the public should still draw attention to the value of the six year molar but by over-emphasizing its care do we not tend to create in the minds of the laity the assumption that dental care for a child begins at six years. I don't feel that we should make comparisons of the value of different teeth but if we must, then it is my opinion that there are just as many or more mouths wrecked from the loss of the second deciduous molar as from that of the six year molar.

SPACE MAINTAINERS

Many theories have been laid down as to where and when to apply space maintainers. This is a problem that presents a great opening for dental research, and indeed one that might serve humanity well. Joseph T. Cohen, Lewis, and others are to be commended for their work in this matter. Cohen⁴ points out that the six year molar can drift 1 mm. mesially in the upper and 2 mm. in the lower arch without causing malocclusion.

The first questions in relation to space maintainers that one must face are where and when should they be constructed and of what type? The answers to these must be determined by considering the following questions:

1. What deciduous tooth is lost and when?
2. What relationship exists between

the eruption of the second bicuspid and that of the second permanent molar?

3. When should deciduous molars be extracted if still in position at normal time of exfoliation?

4. If a deciduous tooth is to be used as an abutment for the maintainer, what does a radiogram reveal with respect to the time this tooth itself might be exfoliated?

5. If a deciduous molar is lost at an early age when is the permanent tooth expected to erupt?

6. Should the maintainer be of a free end type to allow for lateral growth?

7. Is an occlusal functional maintainer necessary?

Let us first turn our attention to the first factor,—what deciduous tooth is lost and when.

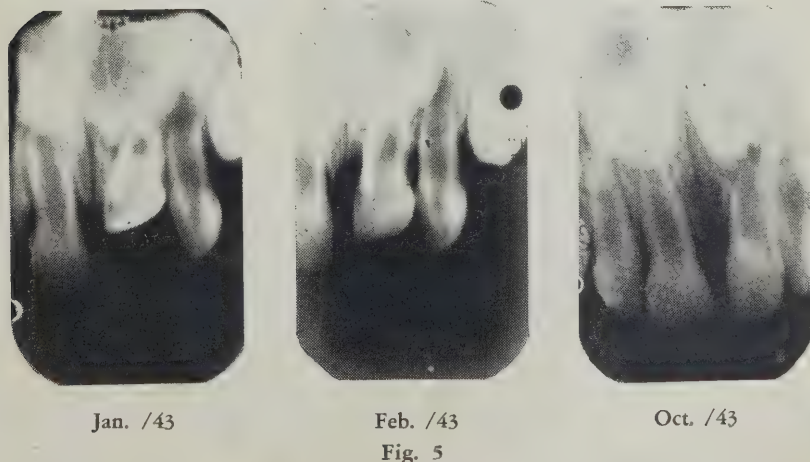
a) If a second deciduous molar is lost, I personally would always construct a maintainer up to the age of 10½ years. If lost at this age, I would take an x-ray and if it is found that the second permanent molar was contacting the six year molar and more advanced in the process of eruption than the second bicuspid, I would construct a maintainer. If the reverse was found to be true, then the case could be kept under observation until the second bicuspid erupts.

b) If the first deciduous molar is lost

before the eruption of the permanent lateral incisor and the six year molar, a space maintainer should be constructed. If the six year molar is in position but the permanent lateral still not erupted, a space maintainer should be constructed. If both the six year molar and the permanent lateral incisor are both in position and the first deciduous molar lost, then a space maintainer is not necessary. However in any case where a space maintainer is not constructed, the space should be kept under observation.

c) Inasmuch as the upper permanent incisors are larger than the deciduous and the jaw must develop laterally to accommodate them, then it should necessarily follow that a space maintainer is not necessary. If through accident deciduous anteriors are driven up into the maxilla, advise that the area be kept clean and that the tooth will re-erupt as in Fig 5. However they will have to be kept under observation and if the pulp becomes putrescent, they will have to be extracted.

d) Most writers evade the issue of the early loss of the lower deciduous incisors probably because accidents to the lowers are rare. I have searched the literature and found little or nothing on the matter. So far all I can report is that I have taken numerous casts and am observing what takes



place. Several orthodontists with whom I have discussed the matter seem to feel that a maintainer is necessary. McBride⁵ says the lower arch (anterior) is a different problem not being a definite part of the skull. Severe contraction may occur and a space maintainer is necessary. Baker⁶ says if the mandibular deciduous incisors are lost prematurely the mandibular arch will not grow sufficiently in width to provide space for the permanent incisors. This condition usually induces a narrowness of the maxillary arch with crowding of the teeth and excessive overbite. For some time I was rather reticent about agreeing with the above statements but of late I have become firmly convinced that a space maintainer in most instances is necessary to replace the mandibular incisors when lost prematurely. If a space maintainer is constructed it should be a type that will allow development of the arch yet prohibit any collapse of the anterior segment of the jaw. Fig. 6 illustrates malformation of both the upper and lower jaws of a child now 3½ years who lost the lower right deciduous lateral at the age of 14 months. One can readily see the lack of proper arch form on the right side both upper and lower.

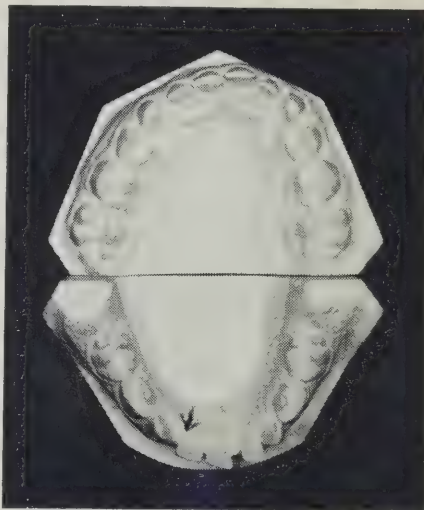


Fig. 6

came to the office, I found the occlusion quite normal and the impacted bicuspids in their normal position. I was obliged to telephone the mother about another matter and I remarked on what a lovely result the orthodontist had secured. Needless to say my face was red when I was informed that they were still attempting to save sufficient funds to undertake the work. Fig. 7 illustrates the condition on first and second visit respectively.

The second factor that confronts us in making a diagnosis in relation to when and where to construct a maintainer is that of the process of eruption, that is to say before attempting treatment, a study of the relationship that exists between the advancement of eruption of the teeth in that area should be made. In my earlier years of practice, a child, Donald D. came to the office with two upper six year molars drifted mesially to the point that they were almost in contact with the distal of the first deciduous molar. I very definitely informed the mother that these teeth could never erupt normally and referred her to an orthodontist. The orthodontist of very good standing agreed with me and gave her an estimate. I did not see the patient for over a year. When the child

On examining the radiograms I came to the conclusion that the permanent cuspid and first bicuspid would occupy all the available space in the anterior segment of the jaw and therefore the second bicuspid must have opened up the space by pushing the six year molar distally. However the question at this time that came to my mind was—if the second permanent molar had been further advanced in the process of eruption than the second bicuspid, would the space have been opened up as was evident in this case. This experience made me realize that this observation was an important one and my interest in the matter led me to look for further evidence. Later, I observed that a little girl, Lois H., who

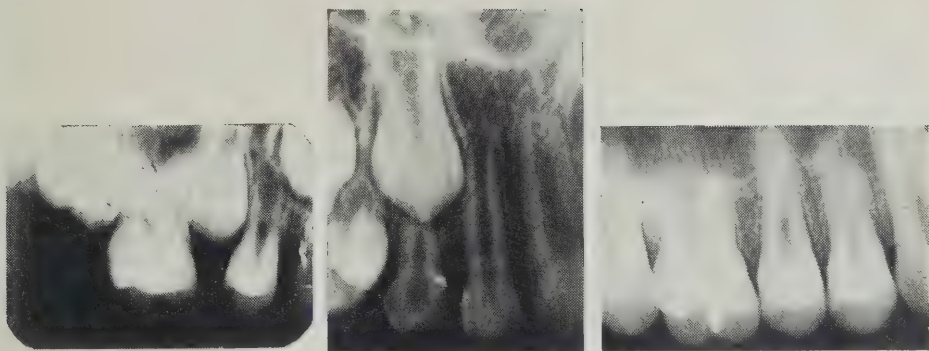


Fig. 7

had been in my practice since three years of age and who had lost her deciduous molars normally at eleven years of age had two impacted bicuspids as in Fig. 8. It is my belief that the second molars, erupting too early, had closed the space.

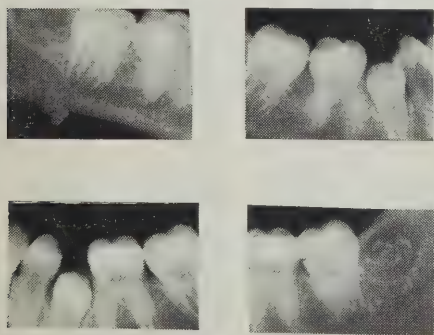


Fig. 8

Fig. 9 shows a case history of x-rays taken in October, 1940, and again in November 1941. In this case the chronological age alone was used as a guide to determine whether or not a space maintainer was necessary. No space maintainer was constructed and as a result the second bicuspid on one side became impacted.

When one sees what can happen to the alignment of teeth during the process of eruption does it not seem reasonable then to conclude that before making a diagnostic report to the pa-

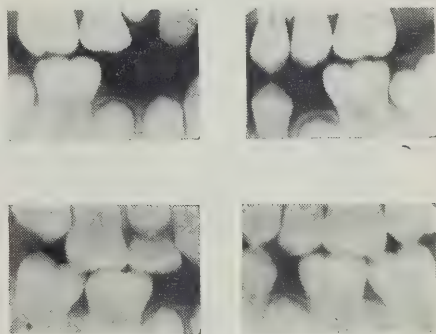


Fig. 9

tient, x-rays should be taken and a study of relationship that exists between the physiological and chronological aspects of the case.

Let us as a further example take the case of Jimmie G., a boy of 12½ years of age.

On Fig. 10 it will be noticed that his deciduous roots are still quite long and clinically speaking the teeth were quite firm. It will be noted that several large carious lesions are present. If we were to think of Jimmie's chronological age alone, we would be tempted to remove the deciduous molars thus saving the parents the money and the child the discomfort of having treatment. However, in view of the observations just discussed, it will be wise to retain these teeth for some time yet. It will be noted that the second molars, particularly in the lower, will probably

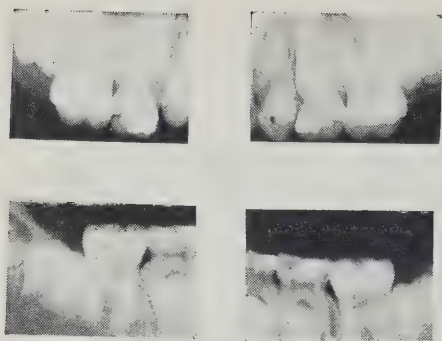


Fig. 10

erupt well in advance of the second bicuspid. My clinical observations over a number of years leads me to believe that in this case the second bicuspid are liable to become impacted if the deciduous molars are removed even at 12½ years. In this case I would retain the deciduous teeth until the second molars are completely erupted. In many cases however the deciduous teeth are retained too long in the mouth as in Fig. 11 (15 year old patient) and the damage to alignment of teeth is equally as great.

Another factor that confronts us in relation to space maintainers is one in which the second bicuspid is congenitally absent. It is my opinion that if this condition were detected through x-ray at five or five and a half years of age and the second deciduous molar extracted, the six year molar would move forward and a reasonably good occlusion would be obtained. Higley⁷ states that if such a procedure were carried out, bridges and artificial restorations might be avoided at a later date. Fig. 12 illustrates such. X-rays were first taken in Nov. 1940 and again in 1943. According to previous history the second deciduous molar was extracted sometime previous to 1940.

Another problem to be considered before constructing a space maintainer is where the first deciduous molar is being used, as an abutment, is there a possibility of early exfoliation of that tooth? Once or twice I have constructed a space maintainer on a first deciduous molar at 7½ or 8 years of age only to find that the molar was soon lost. When this happens, one is liable to forget about a space maintainer and hope for the best. However, as men-

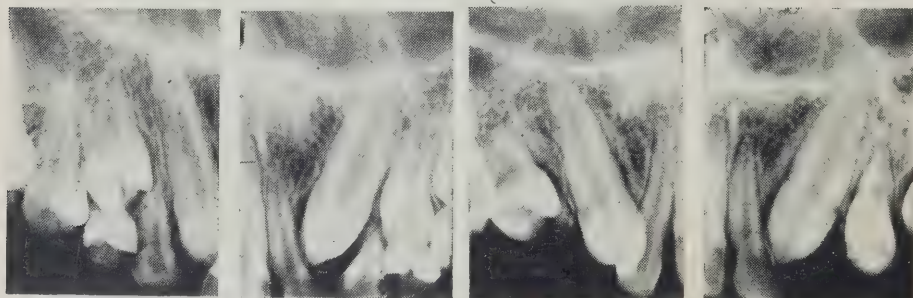
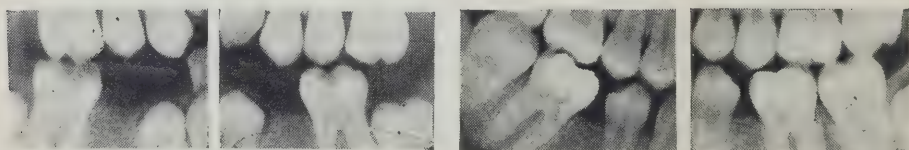


Fig. 11



November 1940

February 1943

Fig. 12

tioned above, too often the second permanent molar erupting force comes into play and the result is an impacted bicuspid. The result will be a disappointed parent—particularly after paying for a maintainer. To avoid this outcome, study the x-ray and try to determine the time of exfoliation of the first deciduous molar. One should also study its prognosis from the standpoint of pulp. Having had many such failures in my practice, I felt it was time that some new type of maintainer be devised that could cope with such a situation. I designed a new type of space maintainer called the intermaxillary occlusal extension space maintainer.

In Tanya L., nine years, the upper cuspid and first deciduous molar were being lost and the second deciduous molar had been lost. The x-ray showed that the second molar was liable to erupt before the second bicuspid thus a space maintainer was thought necessary. A Willett overlay was constructed on the lower second deciduous molar and a projection $1\frac{1}{2}$ to 2 mm. was extended parallel with the distal surface of the lower deciduous molar and to a point where it contacted the mesial of the upper six year molar.

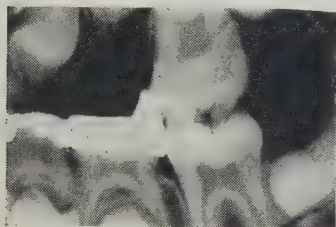


Fig. 13

Such a maintainer merely acts in a similar manner to that of an exfoliated second deciduous molar. If such a maintainer is inserted before the upper six year molar has erupted, I extend the projection to touch the upper gum at a point parallel with the distal surface of the lower second deciduous molar. As the six year molar erupts grind off the projection and when the

six year molar is fully erupted it need not be higher than $1\frac{1}{2}$ mm. When a maintainer of this type is constructed on the upper, to keep the lower six year molar in position, care must be taken to make the projection just long enough to avoid interference with the occlusal surface of the six year molar when the lower jaw is in protrusion. I have a number of these in mouths and so far they have been satisfactory. Several factors however which may possibly spell failure are being observed.

When the lower second deciduous molar is lost I construct a Willett space maintainer as in Fig. 14.



Fig. 14

The arm at right angles is extended along the distal wall of the distal socket of the extracted tooth. If the second deciduous molar has been extracted some time previously, I determine the point at which the right angle arm should be placed by measuring the other side of the mouth or by locating a point on the lower jaw parallel with the distal surface of the upper second deciduous molar. At this point I relieve my model slightly and construct a short arm. One must keep in mind that very seldom would the six year molar have drifted more than $\frac{1}{2}$ mm. before erupting and that therefore a long arm may not be necessary.

Another very important question in relation to space maintenance is, when is the permanent tooth, following the extraction of the deciduous tooth, going to erupt? Very often, due to a large infected area around the deciduous molar which has been extracted, the bicuspid will erupt early. In such cases it is wise to wait for a few weeks

before constructing a space maintainer. Fig. 15 shows a second bicuspid which erupted at 6½ years of age and only three weeks after the extraction. More than once I have made a poor diagnosis in this respect and when the maintainer was ready, as in this case, and the child brought in to insert it, the tooth was already erupted.



Fig. 15

Most writers recommend a functional space maintainer. My observations both in practice and clinic lead me to believe that seldom do we find the deciduous teeth exfoliating to any great extent except in cases of multiple extraction. Many prominent writers, such as Brauer⁸ and Willett¹ favour a functional space maintainer. Some authors definitely say that more attention should be given to the extrusion of deciduous teeth. However, to date I have not been able to find anything in the literature I have so far examined as to the damage done to the occlusion of the secondary dentition. In cases where either all the mandibular or maxillary deciduous molars are lost prematurely, I construct a prosthetic appliance.

THUMB SUCKING

Habits also play an influencing role in the establishment of malocclusion. Much has been written about thumb-sucking and numerous psychologists have told us a great deal about how and when to treat it. Some even go so far as to say it does not cause malocclusion. Very few dentists will agree with this school of thought. When an appliance is placed in the mouth which

helps him unconsciously to break the habit, it is not advisable to let him know why it is put there and the parents are advised to act accordingly.

Dr. J. B. Higley,⁷ Iowa, says, "Since a habit is an unconscious mental pattern, it seems only reasonable that the use of a corrective device that will recall the act to the conscious mind

and will upset the pattern by making the act impossible or ineffective, should be a more logical procedure than an appeal to ego or pride". I thoroughly agree with this statement. It is generally agreed that if the habit of thumb-sucking can be stopped before five years of age, orthodontia is not so apt to be necessary.

An appliance can be constructed by putting cast crowns on cuspids or first deciduous molars or both and a 0.045 wire is soldered across the palate clearing it at the mid line by 3/16 of an inch. If this does not prove successful three or four sharp pointed 2 or 3mm. projections can be soldered to the wire and placed in a position pointing anteriorly so that they won't hurt the tongue but will the finger. The appliance is left on for several weeks and if the habit is not decreasing or if an auxiliary habit is being formed, then it would be wise to discontinue the treatment.

Probably the best treatment for thumb sucking should be to concentrate on breaking the habit at an early age. This might be accomplished through the aid of thumb guards, aluminum mits, splints, etc. If we succeed in stopping the habit we should not carelessly

state to the parent that by doing this we are practising preventive orthodontia. We may be intercepting malocclusion in this segment of the jaw but it does not necessarily follow that orthodontia is not needed. It might be wise to delete the word preventive orthodontia from our literature.

Ectopic eruption of teeth is another important factor which, if not treated early, tends to create a malocclusion. This phase was covered in the paper which appeared in the May issue of this Journal.

P. 21

TECHNIQUE FOR WILLETT SPACE MAINTAINER

The technique for constructing a space maintainer of the Willett type is as follows. With a safe sided steel disk (protected by a guard) remove a slice from the mesial and distal of the tooth to be crowned. The buccal, lingual, and occlusal grooves are deepened with a No. 48 carborundum stone. Using the same instrument the marginal ridges are cut down sufficiently to allow for at least $\frac{1}{2}$ mm. of material in this area of the crown. A diamond pencil stone or a No. 48 carborundum stone is used to remove the undercuts from the labial and lingual surfaces. A copper band is fitted to the tooth cut down so that it extends about 2 mm. beyond the occlusal surfaces of the tooth when forced down to the gingival. The tooth is lubricated and a low fusing compound is melted into the band and when placed on the tooth is forced well below the gingiva. The impression is well cooled and the plaster impression then taken in a crown and bridge tray. When the plaster impression is removed the compound impression of the tooth is packed with silver alloy and for retention purposes a small wire loop is left projecting out of it. The plaster impression is painted with a separating fluid and a stone model is poured. With this technique we have a very good amalgam model upon which to work in the construction of the crown. 32 gauge pink wax is used to cover the tooth and the wax is re-

moved from the cusps but left in the grooves mentioned in the preparation. The 32 gauge wax is then covered to the desired thickness for casting with a harder inlay wax. A 14 gauge wax extension wire with a 3 mm. right angle arm is placed between the crown and the tooth approximating the space. In the case of the cuspid region, this right angle arm contacting its distal surface allows for the movement of the cuspid when lateral development takes place.

The maintainer is cast in Utaloy using the water expansion method (water at 95-98 degrees for 30 minutes).

SUMMARY

In summarizing the above observations in relation to factors which tend to influence the growth of jaws and alignment of teeth does it not seem reasonable to draw the following conclusions:

1. From the surveys mentioned in this paper it would seem that this phase of work has been neglected.

2. Early diagnosis in the pre-school age of dental caries in the deciduous teeth and the preservation of these teeth through prompt and careful treatment is the first step assisting in the promotion of normal growth and development.

3. There is a right and a wrong time to extract deciduous teeth,

4. The chronological age of the patient alone should not be our guide as to determine whether or not a space maintainer is necessary. However this, and a study of the physiological aspect of the case through the medium of x-ray should act as a good guide for diagnosing the case.

5. The type of space maintainer should vary according to the condition found in the x-ray together with the clinical aspect of the case.

6. A free end space maintainer is only necessary in the cuspid area because of lateral development.

7. Slicing of deciduous teeth during the process of eruption of the second-

ary teeth often helps to prevent malocclusion.

8. The profession should be awakened to the damage done by habits and attempt to assist the parents in coping with the situation.

9. Factors that tend to create malocclusion are found while the child is under the care of the general practitioner hence anything that has to do with the interception of malocclusion is definitely a general practitioner's problem.

10. The term preventive orthodontia should not be used. By constructing a space maintainer you undoubtedly are intercepting malocclusion in that segment of the jaw, but it does not necessarily follow that orthodontia on the mouth as a whole will not have to be done.

11. Last but by no means least, should we be ready to admit that the education of the public is well in advance of that of the dentist. In our literature to the public we stress the importance of the deciduous teeth and space maintenance but from my observations in the school, in which I have surveyed each year for five years, I am not yet convinced that the dentists as a whole are really themselves awake to the value of space maintainers. Let me reiterate my findings of approximately

1,000 deciduous teeth lost prematurely only three space maintainers were found. These statistics were taken from a district where the parents can well afford the best possible treatment for their children.

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- 3032A Yonge Street.

Everyone has some problem. I never met a completely trouble-free man. It is a sort of compensating law of Nature that if a man is free from financial troubles, say, then he has health troubles or home troubles, or a very exacting and demanding job. If you do not believe this, just ferret about amongst your friends and you will find that every one of them has some secret trouble or grievance about which they say little but brood much. — A writer in "Modern Salesmanship."

"The temper of our age is too desperate for this elegant individualism. Because the social structure is shaken, men demand of every intellectual activity that it shall serve, directly or indirectly, some recognizable social need." — Professor of Greek, Oxford University.

He who waits to do a great deal of good at once will never do anything.— Samuel Johnson.

Schoolmaster Abroad

QUESTION:

IF YOU WERE ADVISING YOUR SON OR ANOTHER YOUNG MAN ON A CAREER AND HE WERE QUALIFIED AND INTERESTED, WOULD YOU ADVISE HIM TO GO INTO THE DENTAL PROFESSION?

ANSWER

By J. Stanley Bagnall, Halifax, Nova Scotia, Professor of Dentistry and Secretary of the Faculty, Dalhousie Dental College.

I find your question a very difficult one to answer since, so far as I can remember, I have never advised a person to go into dentistry. I did not advise my son to do so, but when he made the decision himself I was very glad that he had decided on dentistry.

There are two reasons for this stand: I would not like to feel that I had influenced any young person to the point that I had persuaded him to make dentistry his life work. Again, I think that the person we want in dentistry is the man who can make up his own mind what he wants to do and not be "talked into it" during the years when he is making up his mind what he wants to do.

If a young man comes to me to learn about dentistry my first reaction is: Is he one who has a reasonable chance of success? We have been fortunate here in our teaching experience that our group of students has been small enough so that we could get to know each student well, to follow his progress through each of his years in class and then very often keep in touch with him after he was graduated. This experience has gradually built up in my mind a picture of the qualities I would like to see in a dental student. It is difficult to put these in order of their importance and I do not try to do so. I think that he should have a

good personality and have had a sufficiently good school record that he is not likely to have to quit for reasons of scholarship. This does not mean a brilliant record; that type may not be able to apply his knowledge, and may be due mostly to a better than ordinary memory. I am more interested in the man who keeps at it and turns in the kind of record which shows steady improvement. I am not interested in the quality so often spoken of as finger dexterity, since I do not know just what is meant by the term. I am interested to note whether he is neat and tidy in his appearance and I would like to see his school notes or some similar work to see whether he is neat and orderly in his work. I am not impressed with the statement that dentistry requires great finger skill, but it does require that each operation be carefully and honestly done and that the operator should have a pride in doing a piece of work neatly and accurately.

If our candidate has these qualities and I do not think they call for anything so special that many students who pass out of high school each year do not possess them, then I would feel free to put a dental career before him rather strongly.

I have never regretted my own choice and if I had the opportunity to do it over again I would again make the same selection.

I think that the place of dentistry in the scheme of things is very much better today than when I made my choice some 30 years ago.

The statistical position of dentistry has never been better than it is today. It is one of the least crowded of all the professions and the prospects of a graduate securing a good practice have never been better.

The interest in dentistry on the part of the public is steadily increasing and the demand for dentistry is growing.

The dentist runs his own practice and is not subject to the whims, etc. of the politician, or to those who are his superiors in a commercial office.

The dentist is freer than most from the ups and downs of our economic system. This is not to say that the dentist's practice is not greatly affected by "good" or "bad times", but at least in most places he is free from the nightmare of the wholesale folding up of businesses in bad times.

He can select the type of locality in which he has to live and can choose the small centre or the large as he wishes. He is not under the threat of being transferred to a new locality to which so many in commercial life are subject.

He is working for himself and his family and he himself and not some corporation is the gainer or loser if he devotes more or less effort to his work.

Dental practice has its difficulties and its worries and I suppose that there are many times that we feel we have more of these than the fellow across the street who is making his living some other way. Still I honestly feel justified in putting a pretty strong picture of dentistry today before the young man who I think has the qualities I have already outlined and is physically equipped to carry on practice.

ANSWER

*By Earl M. Laurin, Montreal, Quebec,
Associate Editor of the Journal
of the Canadian Dental Association for Quebec.*

I have given the said question some thought as I have two sons who are now serving in the Active Forces, one of which has his matriculation, and will no doubt enter the university after the war. To date he has made no decisions with regards to his future career. From a purely selfish point of view now that I am passed middle age and hard work is beginning to tell on me, I feel that it would be grand to

have my son associated with me in my chosen profession: he would no doubt in time relieve me of many responsibilities, and how proud and satisfied I would be. On the other hand when I am in a more rational mood, and I look around and see so many of my college chums who have chosen other careers, and are doing extremely well financially and otherwise without having their noses to the grindstone all day, I hesitate to advise my son to undergo six most strenuous years at university and work like a slave in a one man concern. I say one man concern because I know that if I were to have a prolonged illness or an accident my earning power would be nil. In dentistry the earning power of the dentist for the present and the future depends on his ability to carry on a practice, or to teach the art to others. If my son had a very high academic standing and all the other qualifications including the desire and determination to become a top notch dentist, or if he had the desire to go into dental research or dental education then and only then would I encourage him to take up dentistry as a career.

ANSWER

*By T. R. Marshall, Toronto, Ontario,
Assistant Editor, Journal of the
Canadian Dental Association.*

Undoubtedly there are advantages and disadvantages to any occupation. Before an individual selects a vocation he should give careful consideration to as many factors as possible which are favourable and otherwise in order to properly evaluate the benefits of the undertaking. Having done this and if the information gained has made an appeal to the individual for many good and important reasons, I believe satisfaction will result in the favoured choice thus made.

I would not recommend dentistry to a young person who was seeking an easy way of making a living. He should know that the work is exacting and confining. He should possess an apti-

tude for dentistry, having digital skill, patience, and a cheerful disposition. With these thoughts as a background I would submit:

1. Dentistry is a profession offering great opportunities for serving mankind in health preservation.
2. Dentistry calls for a university education which is an advanced training of the mind to enlarge the individual's intellect. The student secures a university education through a course in dental science. On graduation he is not only prepared to give leadership as a citizen but he is qualified to render a much needed specialized service.
3. Dental science is not merely a technical training as is so often supposed. It includes that as a means of restoring certain diseased conditions to health but fundamentally dental science is a broad comprehensive scientific study requiring all the ability of our best students to become proficient dentists.
4. Dentistry offers a tremendous scope for the ambitious, in research and professional advancement. The past one hundred years has witnessed active professional progress with the possibilities for the future very great indeed.
5. Dentistry as a profession presents an opportunity for personal independence through dental practice as a private enterprise.
6. Dentistry offers a good opportunity for success in life which Dr. George Wood Clapp defines as:
 - (a) A comfortable living,
 - (b) Security against sickness and old age if one is reasonably thrifty,
 - (c) Esteem of one's fellowmen,
 - (d) Happiness.

Happiness and contentment are the topmost compensations and in this case are derived from a worthwhile service to our fellow citizens in the community.

ANSWER

*By Stephen A. Moore, London, Ontario,
former Chairman of the Journal
Committee and Past President
of the Canadian Dental
Association.*

This question is very pertinent at the present time. Never in the history of dentistry has it been more urgent to secure desirable students to undertake the study of dentistry. There are many problems facing the profession of which the relation of the profession to the state and to the general public is probably the most important. These problems will have to be solved by the profession and for this reason the profession should be composed of individual members of the highest standards possible.

Before I entered into the study and practice of dentistry I had some different occupations which covered a great scope of territory and it did occur to me that dentistry might be a profession of limited endeavours. It is true that the field of scientific or clinical dentistry is somewhat limited but I believe the field of organized dentistry is large enough to satisfy the efforts of almost anyone.

For a person who wishes to create a large estate the profession of dentistry would be undesirable but for an individual who wishes to make a reasonable living, to contribute something to the welfare of his community and to occupy a respected position therein, I believe it to be a desirable occupation and would not hesitate to recommend it to a prospective student whom I thought would make a desirable member of the profession. If I did not feel this way I would certainly discontinue the practice of dentistry and undertake some other occupation. Sometimes I hear members of the profession belittle it stating they wished they were in some other occupation and invariably I believe it would be better for the individual and for the profession if this were so. Dentistry, like other professions, has many misfits but I

do not think there is any profession which has a greater percentage of sincere workers with high ideals endeavouring to render a worthwhile service. The friendships I have made as a member of the profession are cherished and in years to come when mundane things are of little interest to me the memories of these friendships will mean much.

There is no doubt of the future of dentistry if the standards of the students entering the study of the profession are maintained. In summing up my remarks I would say that dentistry offers an individual a reasonable living, the opportunity to contribute a service to the community, a profession which is active and virile and must progress in the years to come.

ANSWER

By W. Scott Hamilton, Dean, Faculty of Dentistry, University of Alberta.

In reply to your question: "Would you advise your son to go into the dental profession, if he were qualified and interested?", I think that, before giving advice, it is essential that the boy make the suggestion, as indicated in your question, that he is interested in dentistry. Under such circumstances, I have never hesitated to give advice. I try to give a true picture of what is expected in the way of professional conduct, and hard study, and of the opportunities afforded for contributing

something worthwhile to a rapidly progressing profession. I also try to describe the type of life enjoyed by a successful dentist, commenting on those qualities which tend to make for success.

ANSWER

By R. L. Pallen, Vancouver, British Columbia, Delegate to the Canadian Dental Association.

My reply is "Yes". My reasons for this are as follows. I am very much interested in the dental profession, and, in other words, in love with it. If the young man is interested and sincere, and honest with himself and the profession, and particularly his clientele, there is every reason that he should take it up. There is everything in the dental profession that his heart would desire, if, as I said, he is sincere and interested. Certainly I am taking for granted that this young man would carry out the ideal I have in mind. Personally, I am very fond of my profession and I feel that it is equally as important, or should be, as the medical profession, although the field is not as great.

I have seen a great change in dentistry in the last twenty-five years and for the better, and I am serious when I say that a great deal of the future of our profession and higher prestige will depend on our Canadian schools. There some great changes must be made and made real soon.

If a good face is a letter of recommendation, a good heart is a letter of credit.—Bulwer-Lytton.

Let no back-biting or tale-bearing man sit here.—Saint Augustine.

*"I'd like to think when life is done that I had filled a needed post,
That here and there I'd paid my fare with more than idle talk and boast;
That I had taken gifts divine, the breath of life and manhood fine,
And tried to use them now and then in service for my fellow men."*

The Forum

TOPICAL APPLICATION OF PENICILLIN IN THE TREATMENT OF VINCENT'S INFECTION

By KENNETH R. COFIELD, D.D.S., EVERETT W. FERGUSON, D.D.S.,
ALFRED E. TOYE, D.D.S., Chicago, Ill.

Condensed from Journal of A.D.A. May, 1945

IN JANUARY 1944, no information was available on the treatment of oral infection by the topical application of penicillin. The lack of information made it imperative that certain studies be made relative to various dilutions to be used, methods of application, frequency of treatment and choice of cases to be treated.

Owing to the apparent lack of toxicity, it was believed that the dilution of penicillin could be determined by trial, without injuring the host tissue or the patient's general health. A dilution of 100 Oxford units per cubic centimeter of physiologic solution of sodium chloride proved to be of insufficient strength, the use of this dilution having no favourable result. An increase in the strength of the solution was made, 500 Oxford units per cubic centimetre being used, and immediately clinical improvement was noted. With the limited amount of penicillin available, it was considered necessary to find the minimum concentration needed for successful therapy. With the dilutions from 100 units to 500 units per cubic centimetre as a basis it was determined that 250 units per cubic centimetre was the minimum concentration necessary to assure the most satisfactory results. The ideal solution seems to be a dilution of 500 units per cubic centimetre of solvent.

With the factor of dilution decided

upon, the next step necessary was determination of the method of application. By trial, it was found that, in topical application, penicillin had to be brought into and maintained in contact with the infected tissue. In order to accomplish this, cotton was placed in a gauze napkin 2 by 6 inches and a roll was formed and tied at each end, and once or twice in between with dental floss. A number of these rolls were made up and autoclaved. They were then placed between the cheek and the gum tissue and the tongue and the gum tissue. In order to reduce the fluid content of the mouth and prevent further dilution of the penicillin, a saliva ejector was inserted. Pledgets of cotton saturated with penicillin were packed in the interproximal spaces and all periodontal pockets. The gauze napkin and the entire mouth and throat were then sprayed with penicillin, from a standard spray bottle. This method of treatment will use about 5cc. of solution.

The effective time element of the drug under the mouth conditions when applied topically is unknown. With this fact in mind, it was necessary to try treatments varying in length of time and frequency. There was clinical evidence that satisfactory results were obtained when packs were allowed to remain in the mouth for fifteen minutes, the frequency being determined by the clinical findings.

In cases of oral infection treated topically, namely periodontoclasia, pericoronitis, gingivitis and Vincent's stomatitis, it has been found that a case can be carried to a satisfactory conclusion after one or two packings by spraying the throat and gum tissue with penicillin, using a dilution of 500 units per cubic centimetre, the solution being allowed to remain in the mouth for three or four minutes. The use of a normal saline solution as a mouth wash three times daily between treatments is advised.

Like all drugs used in the treatment of oral infection, penicillin *per se* is not a cure-all. It is merely an adjunct to good dental treat-

ment and care. It must always be borne in mind that the principles of dentistry cannot be dispensed with or ignored. Since the gum tissues have no power of autosterilization, removal of the calculus is essential, that the drug may come in direct contact with the infected tissue. Irritation from all sources, namely faulty occlusion, faulty margins, poor oral hygiene, and ill-fitting prosthetic appliances, must be eliminated. In our early work with penicillin, a number of cases were treated with certain sources of irritation still present, and there was very little clinical improvement. This only emphasizes the fact, as stated above, that penicillin *per se* is not a cure-all.



—Courtesy of Dental Economics

"Sorry, Doctor is feeling under par today"

Some think that state dental service must be limited to children while others contend that adults would protest. To be socially sound a plan must be related to the needs of the people and must comprise a concerted attack upon the social problem of dental illness. This, too, is self-evident but it deserves special emphasis because too often one hears the statement "If dentistry does not do something, the government will." If fear of governmental action, rather than the urge to make a social contribution, is the sole driving force behind professional discussion, the sooner they come to an end the better. —Nathan Sinai.

THE ROLE OF NUTRITION IN CANCER PREVENTION

by DR. VAN R. POTTER McCordle Memorial Laboratory (For Cancer Research), Medical School,
University of Wisconsin, Madison

Condensed from Science, Feb. 2, 1945

CANCER represents one of the main causes of death in the United States and is second only to heart disease in this respect. Voegtlin has reported that there are about 500,000 cases of cancer in the United States, with an annual death toll of about 160,000. Brody, of the University of Missouri, and others, have suggested that the increased incidence of the diseases of old age may be due to the over-nutrition and under-exercise which has accompanied our so-called civilization. The incidence of diabetes among women over 45 was reported to have doubled between 1920 and 1930, and it was shown that between 80 and 90 per cent of diabetics had been overweight prior to the onset of the disease. There is apparently a correlation between diabetes and cancer, for it has been shown that the incidence of cancer among diabetics is much higher than in the population at large. It is interesting to find that when animals are placed under certain conditions analogous to those of "civilized" man, the incidence of cancer increases, as I shall show later.

For my part I have deliberately turned my back on the search for chemotherapeutic agents, and in the present talk I wish to emphasize cancer prevention. I believe I can show that there is considerable justification for optimism regarding this approach.

Naturally it must be conceded that a cure which would be as effective for cancer as penicillin is for certain types of infections would be a great blessing to mankind. But if, as I suspect, the answer to the degenerative diseases such as cancer lies in prevention through appropriate self-discipline, then it is possible that under such a program mankind would reap even greater benefits. There will be no reward for a program of cancer prevention. We can not hope to sell it, and

in fact I expect we will have difficulty in giving it away.

Let us now look at the tools at our disposal. The most important fact is that we can produce cancer in experimental animals at will; we can predict the per cent which will develop cancer, and we can produce cancer by a variety of methods and in a variety of animals. We are sure that we are dealing with cancers which are comparable in every way with human cancers.

In human cancer, the induction may be caused by excessive radiation including ultra-violet, and in certain cases by extraneous chemical carcinogens, but in most cases it is probably a result of a hereditary defect. However, the mere production of cancer cells as a result of heredity or as a result of painting with a carcinogen does not guarantee that a tumour will result, as can be easily proved. During the second or critical period the cancer cells are susceptible to environmental changes, and they may regress or they may continue to develop until they suddenly break away from the restraint of the host cells and a malignant cancer suddenly appears.

It has been shown by various workers that a restriction of the caloric intake cuts down cancer incidence. In one of Tannenbaum's experiments with mice which showed a high incidence of spontaneous (i.e., hereditary) mammary tumours, restriction of the food intake to a maintenance level reduced the cancer incidence from 67 per cent to zero per cent.

The nature of the calorie effect and the exercise effect involves the metabolic response which is mediated by the pharmacologic control. It appears to be due to the increased efficiency of the trained animal in working at a lower concentration of fuel and building blocks than can be tolerated by the cancer. In other words, the trained

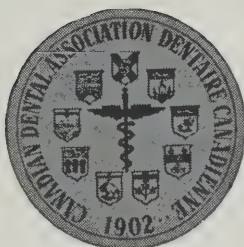
organism can compete with the cancer during the critical period. In the absence of exercise and in a flood of nutrient there is no competition and the cancer thrives. Eventually the cancer passes the critical point and is able to damage the surrounding tissue (possibly by acid) and thereby provide itself with a border of normal cells which behave as if they were treated with cocarcinogen. The cancer then grows until the host is killed.

In conclusion I wish to re-emphasize that the cancer problem is susceptible to experimental study and that the nature of cancer now seems fairly clear. Animal experiments provide us with a definite guide toward the prevention of cancer in humans. The answer may consist in eating no more than we need and in keeping physically fit, with the addition of proper medical care so that any chronic irritations are eliminated. These precautions demand a considerable degree of self-discipline, but I am confident that as soon as the points are thoroughly established, educational campaigns can get the message across to the people. It is here merely suggested that nutritionists,

dietitians, physicians and the public remain as alert to scientific developments regarding the effect of diet restriction and the effect of exercise upon nutritional requirements as they are to developments in dietary adjuvants. The restriction of the quantity of food eaten requires that the quality of the food be carefully controlled. The metabolic studies have other implications, which involve the frequency of food ingestion. The practice of feeding workers six times per day may be sound psychology, but it does not increase the efficiency of their metabolism. It is now clear that the human body adapts itself to various difficult situations by improving its metabolic efficiency. Since maximal metabolic efficiency appears to be related to decreased degenerative disease, the human race is confronted with a nice problem as to how to improve our external environment without weakening our internal environment. We believe that the future of mankind rests on the physical and psychological results inherent in the solution of this problem.

If there be some measure of truth in the observation that children seek the unknown but adults fear it, then research is a kind of fountain of eternal youth, for research, whose purpose is to meet the unknown, provides our minds with the perennial freshness and delighted curiosity of youth. Research requires discrimination of a high order and tenaciously loyal support. Research does not employ magic: it calls for observation, experiment and reasoning. It is not hidden: few human activities are so accurately recorded or so freely communicated. It is not mystical: it rests upon experience and clear thinking. It is not the plaything of scholars: it is the laborious, costly, incessant, painstaking occupation and preoccupation, of imaginative men and women who are humbly but actively dissatisfied with even the most that is yet known about men and things.

Unless we are prepared, in the immediate future, to initiate, pursue and support all kinds of research, and as never before, the New World will not remain on this side of the Atlantic or the Pacific. Any nation, any business, any university can ignore the importance of research but only at the inevitable price of losing its strength and foregoing its youth. Knowledge is power; and new knowledge is fresh power. How can we afford merely to wonder at the benefits research has already and certainly brought—and leave it at that?—Dr. Alan Gregg, Rockefeller Foundation in "Science".



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Editorial

MY SON — A DENTIST

In the Schoolmaster Abroad section of this issue of the *Journal*, there appear replies to the question, "Would you advise your son to become a dentist?" by six prominent Canadian dentists. Their replies are favourable, and of course we must admit that a different viewpoint might be forthcoming had they been less prominent and less successful.

From these replies, one might summarize the advantages offered a practitioner of dentistry as follows: Field is large and interesting enough to satisfy and produce happiness; gives a comfortable living, presents opportunity for personal independence, and gives reasonable old age security; contributes to health of the nation; offers position of respect; gives scope for research; one can live where one wishes; is least crowded of the professions and the demand for dental service is growing; not subject to whims of others. Only one contributor looks at the possible advantages of the business world when he sees friends who are doing extremely well financially without having their noses to the grind stone all day. Perhaps many of us have business friends who have their noses to the grind stone year in and year out and still fall far short of the financial status of the average dentist.

These replies intrigue me and I wish to enlarge upon them, believing as I do that dentistry offers marvellous advantages at the present time, granting that we stick together and insist that dentistry be respected in any government plans that may be evolved in the future. Furthermore, if dentistry is going to advance as we all hope it will, we must all do what we can to encour-

age the right type of young man or woman to enter our ranks. And doesn't that mean your son if he has the necessary qualifications?

The variations in the practice of dentistry are boundless with unlimited scope in art, mechanics, chemistry, biology, physiology, psychology, pathology and business acumen; and modes of practice are changing continually. The young practitioner has little financial risk, little or no labour troubles, can have all the necessities of life and soon many of the luxuries. Above all he is master of all he surveys. If he is fortunate enough to be associated in a group practice, he will find it particularly easy to plan his holidays in any season or for any length of time that he desires without having to give a thought as to how the practice is being carried on in his absence. This is equally true during times of sickness, which is of great value. How different in the business world! I am thinking now of a friend who has worked for a business concern for forty years. He is now provincial manager of this company. For many years he never had more than two weeks' holidays in any one year and even now he has only three weeks every other year and these at a stated time. Too many dentists do not respect their freedom, in this regard, as they should.

Very few men who enter established commercial businesses reach the top and these men have usually worked very hard. The large majority get into a groove and stay there. Big companies don't always recognize greatness and ability, and so one has to wait in line for promotion. In these days too many young men wish to get into established businesses. They are willing to start at the bottom of the ladder but they want someone else to hold the ladder, thus hoping for security with minimum effort. We should remember that it was the man who demanded independence, worked hard, and was his own boss, who built up this country and every country. What would have happened to any successful business if the founder had not banished fear and with a great determination started on the upward path? Dentistry offers this prize of independence.

Of course, a young man should not choose dentistry as a career because his father or brother is in it or because a parent wishes him to follow in this line. Bulwer says "There are few questions in this world so frequently agitated, of which the solution is more important to each puzzled mortal, than that upon which starts every sage's discovery, every novelist's plot, — that which applies to man's life, from its first sleep in the cradle, — 'What will he do with it?'" If in the practice of dentistry a young man finds himself in the right place and is determined to become master of his calling in all its details he will find lasting satisfaction in his achievements, in his intellectual growth, in the development of his character which is greater than any career. "Wealth is nothing, fame is nothing. Manhood is everything."

What has been said has been based upon dentistry as we know it today but when the future pattern of the practice of dentistry becomes clearer, we will be able to say much more in favour of this profession as a life work. Just as it is today, I like dentistry because it has done much for me but it thrills me to imagine what practice will be like for those who follow. Sometimes at

present when I think of the opposition to auxiliary help I think of a writer in the English "Quarterly Review" in 1825, who said, "What can be more palpably absurd and ridiculous than the prospect held out of locomotives travelling twice as fast as horses. We trust that Parliament will, in all the railways it may grant, limit the speed to eight or nine miles an hour." In future days, dentistry will not be handicapped because the powers that be are fearful of rapid progress. All dentists will be able to employ adequate auxiliary help and all dentists will be taught how to use this help profitably and all dentists will wonder how dentistry could have been practised any other way in days gone by. In future days, patients will not be compelled by their family dentist to go to some other office in some other part of the city in order to obtain a set of roentgenograms, to another section of the city to have a tooth extracted, and to another office for periodontal treatment and so on; no one doctor either, having any control over the fee charged by his confrères. All of these services will be rendered under one roof whether in private practice or in public clinics with the most complete equipment, the most proficient assisting personnel, the most complete organization. We will not then ask "Would you advise your son to go into dentistry?" We would rather take it for granted if he were possessed of the natural characteristics absolutely necessary in order to make a success of this profession. The service that dentistry will be able to render will bring satisfaction to the soul. As Carlyle says: "Oh, it is great, and there is no other greatness, — to make some nook of God's creation more fruitful, better, more worthy of God, to make some human heart a little wiser, manlier, happier, — more blessed, less accursed."

—M. H. G.

BOOK REVIEW

The Dentist and His Patient, by David Friend, Executive Director, New Organization School for Graduate Dentists; George D. Kudler, D.D.S.; Myron M. Lieb, D.D.S.; Robert Ritt, D.D.S. and Arthur A. Friend, D.D.S., with a foreword by Harold J. Leonard, D.D.S., Professor of Dentistry, (Periodontology) Columbia University. 480 pages. Published by Revere Publishing Co., New York. Distributed by Organization Publishing Co. Inc., 6 East 45th Street, New York 17, New York, Price \$10.00.

This New Organization was formed in 1940 and the contents of this book made up, for the most, of material which the authors have developed and presented in New Organization study groups of practising dentists, over a

period of more than four years. The book aims to correlate diagnosis and treatment planning with patient education and practice management for optimum control of dental disease.

How often do we see a recent college graduate flounder around for the first few years wondering what dentistry is all about? How often do we hear an older practitioner say, "I had to learn about the practical side of dentistry the hard way". How often do we hear repeated that more dentistry that is really required goes undone for patients finally dismissed from dental offices than the amount which has really been done? Too large a percentage of people who do visit dentists occasionally wind up with artificial dentures due to lack of proper care and education. This

book provides the answer to these problems. In handling the subject, the authors hold to the highest professional ethical standards and yet they show clearly how to correlate patient education with the everyday problems of running a practice in such a way as to spell success.

To the younger man, this book should prove invaluable in getting started in the right direction. To the older man whose habits are set and who from experience, has found that a certain patient relationship has proven successful, it may be difficult for

him to see the necessity of change and yet this reviewer is certain that nearly any general practitioner, or specialist either, could hardly help but be benefited by carefully perusing this publication even though he might not be able to subscribe to every minute suggestion.

Patient education, practice management, diagnosis and treatment planning, cannot be thought of as separate lines of action. As Dr. Leonard, the well-known periodontist, states in his foreward, "These methods work."

M. H. G.

That all men are entitled to the same opportunities, no sane person can deny; but that all men can utilize these opportunities to equal advantage defies the law of organic inequality.

—Karnosh.

DENTAL CORPS NEWS

Major Edward M. Box

Major Box was born May 7, 1902, and received his early education at Carleton Park Public and High Schools. He taught school for one year in Alberta and then entered the Royal College of Dental Surgeons, graduating in 1929. He was awarded a "Fellowship", and received his degree of B.Sc. (Dent) 1930.

He practised general dentistry in Ottawa for ten years and then enlisted with the C.D.C. June 10, 1940, as a Lieutenant, being promoted to Captain, September 1940. He was officer in charge of dental clinics at Ottawa, Brockville, Kingston, Petawawa, and Barriefield, and was promoted to Major, November 7, 1942. He was posted to C.D.C. N.D.H.Q. in January 1944. He acted as Observer for Canadian Dental Corps with Force Eskimo November 1944 to March 1945 and was appointed A.D.D.D.S., April 12, 1945.

Major Box is a member of the Masonic Order. His wife and two children reside in Ottawa. His hobbies are hunting, fishing, gardening and motoring.



CANADIAN DENTAL ASSOCIATION NEWS

NEW OFFICERS OF THE CANADIAN DENTAL ASSOCIATION

The following officers were elected at the Winnipeg meeting of the Association held in June:

Immediate Past President — R. A. Rooney, Edmonton, Alberta

President — Harvey W. Reid, Toronto, Ontario

Vice-President — Victor D. Crowe, Truro, Nova Scotia

Secretary-Treasurer — Don. W. Gullett, Toronto, Ontario

2 Executive Members — J. Armand Fortier, Montreal, Quebec; R. L. Pallen, Vancouver, B.C.

1. *Nominating Committee*—R. A. Rooney, Edmonton, Chairman; R. L. Pallen, Vancouver; V. D. Crowe, Truro, N.S.; G. L. Cameron, Ottawa; J. K. Carver, Montreal.
2. *Committee on Legislation*—S. W. Bradley, Ottawa, Chairman; and all Provincial Registrars.
3. *Finance Committee*—J. Armand Fortier, Montreal, Chairman; R. A. Rooney; V. D. Crowe; R. L. Pallen.
4. *Committee on Publications*—R. P. Lowery, Toronto, Chairman; J. Armand Fortier, Montreal. J. F. Giffen, London, Ontario; Frank Martin, Toronto.
5. *Committee on Dental Education*—A. L. Walsh, Montreal, Chairman; W. S. Hamilton, Edmonton; A. D. A. Mason, Toronto; E. Charron, Montreal; W. W. Woodbury, Halifax; S. J. Bonnell, Saint John, N.B.; R. L. Pallen, Vancouver; J. F. Morrison, Winnipeg; L. J. D. Fasken, Regina; H. S. Thomson, Toronto; R. G. Ellis, Toronto.
6. *Committee on Dental Public Health*—H. Cline, Vancouver, Chairman; and two members to be named by the Chairman—together with the Chairman of each Provincial Committee.
7. *Program Committee*—P. G. Anderson, Toronto, Chairman; Committee to be named by the Chairman after consultation with the Executive of the Association.
8. *Ethics*—Kenneth M. Johnson, Winnipeg, Chairman; G. B. Stibbs, Vancouver; H. L. Freeland, Calgary; J. L. Connell, Prince Albert, Saskatchewan.
9. *Research*—R. G. Ellis, Toronto, Chairman; J. Stanley Bagnall, Halifax; H. K. Box, Toronto; J. H. Johnson, Toronto; F. M. Lott, Ottawa; G. H. W. Lucas, Toronto; H. R. MacLean, Edmonton; A. G. Racey, Montreal; J. J. Rae, Toronto; G. B. Stibbs, Vancouver; J. P. Trottier, Montreal; C. H. M. Williams, Toronto; F. C. Husband, Toronto.
10. *By-Laws*—J. S. Bagnall, Halifax, Chairman; S. A. Moore, London; G. L. Cameron, Ottawa.
11. *Necrology*—D. W. Gullett, Toronto, Chairman; and the Registrar of each Provincial Legal body.
12. *Nomenclature*—G. Franklin, Montreal, Chairman; A. M. Reval, Edmonton; J. S. Bagnall, Halifax. A. G. Racey, Montreal; M. H. Garvin, Winnipeg; and two lay members to be named by the Chairman after consultation with the Executive officers.
13. *Military*—G. L. Cameron, Ottawa, Chairman; H. W. Reid; J. A. Fortier; D. W. Gullett; and 3 members to be named by Canadian Dental Corps.
14. *Rehabilitation*—G. V. Fisk, Toronto, Chairman; T. H. Graham, Toronto; G. V. Morton, Toronto; H. A. Swales, Toronto; J. S. Bagnall; R. A. Rooney; E. Charron; E. T. Bourke, Montreal; S. Bradley, Ottawa.

15. *International Relations*—E. Charron, Montreal, Chairman; Members to be named after consultation with Executive officers.
16. *Health Insurance*—D. W. Gullett, Toronto, Chairman; C. A. E. McCabe, Valleyfield, Quebec; J. F. Morrison; R. L. Pallen; H. W. Macdonald, St. John, N.B.; F. M. Lott.
17. *Advisory*—J. A. Bothwell, Toronto, Chairman; G. W. Grieve; E. W. Paul; E. C. Veitch; P. G. Anderson, all of Toronto.
18. *Public Relations*—To be left to incoming Executive for consideration and appointment.

NEWS FROM THE PROVINCES

ONTARIO:

Board of Governors of the Ontario Dental Association

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 President Frank Martin, Toronto
 Vice - President G. V. Tario, Pembroke
 Historian and
 Archivist G. V. Morton, Toronto
 E. A. Storey Sarnia
 A. R. Poag Hamilton
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 R. P. Lowery
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 H. R. McLaren
 J. C. Devitt, Bowmanville

COMMITTEE ON BENEVOLENCE

J. A. Bothwell, Toronto, Chairman.
 R. S. Woollatt, Toronto
 Russell Hyde, Hagersville

Niagara Peninsula Academy of Dentistry

Congratulations to the dentists in the Niagara Peninsula in organizing this new dental society! There are about 50 dentists in the community, mainly from Niagara Falls, Welland, and St. Catharines. The organization meeting was held at St. Catharines with Dr. Bert Fields of Hamilton guest speaker. Dr. Fields represents this district on the Board of Directors of the Royal College of Dental Surgeons. It is expected that regular meetings will be held next season, arranged alternately to meet in St. Catharines, Niagara Falls and Welland.

The New Officers are:

President, Dr. J. S. Longley, St. Catharines.
 Vice president, Dr. Ken Phillips, Welland.
 Secretary, Dr. J. S. Wright, St. Catharines.
 Councillors, Dr. Don Johnstone, Niagara Falls, and Dr. H. Burrows, St. Catharines.

**DR. J. S. LONGLEY
 PRESIDENT, NIAGARA PENINSULA
 ACADEMY OF DENTISTRY**





GRADUATES IN DENTAL NURSING

Dorothy A. Dearing, Port Colborne; Lois E. Easton, St. Catharines; M. Jean Leatherdale, Jarvis; Kathleen K. Lightford, Perth; Marguerite A. Lockie, Zephyr; Margaret A. McRae, Orillia; Audrey L. Mickleborough, Barrie; Doris M. Putman, Welland; C. Innes Scherer, Ridgetown; Marianne M. Scherer, Ridgetown; Muriel I. Weber, Kitchener; Patricia E. Gilverson, Dorothy S. Gourlie, J. Fern Halsey, Marion E. Harrison, Mary K. Kinnear, Shirley G. Nott, Mary M. Payette, June A. Rose, Norma J. Wilson, Margaret A. Yorick, and Matilda Young, all of Toronto.

Dental Nurses Graduate

On June 6, another class of dental nurses received their "Diplomas in Dental Nursing" from the University of Toronto. This year 22 young ladies successfully completed the requirements of this one year course offered by the Faculty of Dentistry.

This course was originated by the late Dean Wallace Secombe in 1920 and since its inception 492 young ladies, including the present class, have graduated. The course is very popular, as each year there are many more applicants than can be accepted because of limited training facilities. Instruction is given in surgery assistance, sterilization technique, radiography, prosthetic and operative assist-

ance, typing and book-keeping as well as dental office practice. This year as in other years applicants are accepted proportionately from Toronto, points outside Toronto in Ontario, and representatives outside Ontario.

Dental Nurses' Alumnae

The annual meeting of the Dental Nurses' Alumnae of Canada was held in the Faculty of Dentistry building, University of Toronto, on Tuesday, June 12 with the president Gertrude Walker in the chair.

The retiring executive read their annual reports and the installation of the 1945-46 executive took place as follows: Past president, Mrs. M. J. Walker; President, Miss Lillian

Potter; Vice-president, Miss Barbara Cooper; Recording secretary, Miss Lola Gerrow; Corresponding secretary, Miss Janet Wenger; Assistant Corresponding secretary, Miss Lois Mooney and Treasurer, Miss Margaret Robinson; Entertainment Convener, Miss Barbara Booth; Welfare Convener, Mrs. G. Cole; Membership Convener, Miss Henreietta Mann, and Publicity Convener, Miss Helen Kruger.

Helen Kruger.

Dental Nurses Eligible For Canadian Civil Service

It is gratifying to learn that the status of the dental nurse is now officially recognized by reason of a notice issued recently by the Canadian Civil Service advising that an eligible list of applicants is about to be prepared from those who pass successfully the qualifying examinations. From such a list appointments will be made when positions are available.

Information respecting these positions may be had by addressing enquiries to Mrs. Smith, Civil Service, Bay and Adelaide Streets, Toronto. (Telephone AD. 5185).

Application forms for these examinations are obtainable at Post Offices and the Civil Service Office.

Academy of Dentistry, Toronto

The War Service Committee of the Academy of Dentistry, Toronto, is engaged on the rehabilitation problem. As part of their activities, two letters have been sent out by Secretary Dr. Mark Boyes of 3032A Yonge St., Toronto. One to the Toronto and district members of the Dental Corps, the other to civilian Toronto dentists.

*To the Dental Corps Officers
of Toronto and District.*

Dear Confrere:

You have won the war in Europe. The War Services Committee of the Academy of Dentistry, Toronto, was formed for your comfort during hostilities. It is carrying on with the hope that we may soon welcome you back to civilian life.

If you intend to practice in Toronto and district upon your retirement from the Army, we want you to know that we stand ready to

help you in any way we can to reestablish yourself in private practice.

We would like to hear from you.

War Service Committee.

*To the Civilian Dentists
of Toronto and District.*

Fellow Practitioner.

We would like to draw to your attention the suggestion of the Canadian Dental Association relative to the rehabilitation of dentists now serving in the forces.

"*Return of Patients*—the difficulty of inducing patients to return to their former dentist is fully realized. However, this is a matter of fairplay and goodwill and there is no better way for a member of the profession, who has not been privileged to serve, to exemplify a true professional spirit toward a dentist who has given years of service to his country. Place yourself in his position and try to feel what it would mean to have patients referred back to you at a time when you were attempting to re-establish yourself."

War Service Committee

ALBERTA:

Edmonton Dental Society

This Society held its first Monthly Golf Meet on June 7, at the Mayfair Golf and Country Club.

After golf, dinner was served to the twenty members present, in the Club House. This was followed by the presentation of prizes, post-mortems and the usual after-dinner stories.

Dr. J. D. Hawkins, the President was in the Chair, while Dr. D. E. Florence was in charge of all arrangements.

Calgary Dental Nurses' and Assistants' Association

At the June meeting of this Association, the following officers were elected: President, Jolayne Price; Vice-President, Eleanor Dirks; Secretary, Ray Levine; Treasurer, Mavis Mofatt; Press Convener, Mrs. Akitt.

MANITOBA:

Manitoba Dental Association

Two more well known members of our dental register in Manitoba have passed on during the month of May. Dr. D. G. Leckie



—Photo courtesy Jour. of A.D.A.

EASTMAN DENTAL CLINIC IN LONDON DAMAGED BY ROBOMB

The Eastman Dental Clinic in London, England, was damaged by a German robot bomb July 5 but is now functioning again. The building on the right is the Royal Free Hospital, which also suffered damage from the robot bombs.

of Winnipeg died on the 28th and Dr. H. E. Bewell of Dauphin on the 31st. Dr. Leckie registered in 1908 and Dr. Bewell in 1906. The latter received his professional training at the Royal College of Dental Surgeons in Toronto and Dr. Leckie at the Northwestern University Dental School in Chicago. Both men were well and favourably known in their respective cities professionally and as citizens who had the welfare of their com-

munities in high regard.

Dr. Leckie was a past president of the Manitoba Dental Association and had been re-elected as a member of its Board of Directors last January. This is the first occasion since 1907 that a sitting member of the Board has died in office. The Board of Directors have elected Dr. N. C. Carmichael of Winnipeg to fill the vacancy caused by the loss of Dr. Leckie.

EMPIRE NEWS

A Dental Surgeon in Captivity

Further evidence of the good work which has been done by dental surgeons in Prisoner-of-War Camps in Germany is supplied in a letter from a member of the British Dental Association who has recently been repatriated after five years of captivity. Although at the time of his capture he was serving as a combatant officer in a Territorial Battalion,

he served for the whole period of the five years as dental officer in various camps. During this time he inserted some 13,000 fillings in addition to carrying out a large number of other operations. His work was evidently appreciated by his fellow-prisoners for he writes: "No matter how many hours one worked there was always still work to be done and waiting lists became larger."

GENERAL NEWS

Supreme Court of U.S.A. Upholds License Revocations

On May 23, 1945, Mr. Justice Smith delivered the opinion of the Illinois Supreme

Court which upheld the decision of the Cook County Circuit Court revoking the license to practice dentistry of four dentists associated with the A.A.A. Laboratories.

This is the first case to be tried in Illinois passing on the conduct of licensed dentists who are affiliated with advertising dental laboratories. The decision rendered signifies that a dentist who takes impressions to enable a laboratory to make and sell dentures to the public will lose his license.

Dentists Resign

Resignation of 40 dentists in protest against low salaries halted dental care for hundreds of charity patients of the New York City Welfare Department. The protested pay is \$7.18 for each four-hour session three times a week. —Dental Survey.

U.S.A. Navy Seeks 750 Additional Dentists From Civilian Life

The Navy Department has issued a new procurement directive in an effort to obtain more than 750 dentists from civilian life. Every attempt will be made to fill as many as possible of these vacancies from current graduates of dental schools, but the number of these will not meet present needs.

Inter-American Dental Courses are Planned in U.S.A.

Plans for a second and third inter-American post-graduate course in dentistry, sponsored by the American Dental Association in conjunction with the U.S. State Department, the W. K. Kellogg Foundation and the University of Michigan, have been announced by Daniel F. Lynch, chairman of the International Relations Committee. The second course will be applicable to Costa Rica, Cuba, the Dominican Republic, El Salvador, Guatemala, Haiti, Honduras, Mexico, Nicaragua and Panama. The third course will be held for the ten countries of South America, with one representative from each country.

The second course will begin at the University of Michigan August 15 and continue for eighteen weeks. The tentative date for the third course is April 1, 1946. The first four weeks of each course will be devoted to English orientation and the next twelve weeks to studies in the various branches of

dentistry. The last two weeks will be used for a tour of observation of important dental centres in the eastern part of the United States. A fellowship for the courses will provide travel expenses in this country, instruction and maintenance allowance of \$135 per month.—*Jour. of A.D.A.*

Breathing Penicillin May Be Most Efficient

The administration of penicillin by breathing it in a fine mist may prove to be the most effective means of giving the drug. A recent report in the *Lancet* by two bacteriologists from Guys Hospital in London described tests in which volunteers sat for fifteen minutes in a small closed room into which half a teaspoon of penicillin had been sprayed. Blood samples at the end of that time showed a high concentration of the drug.

It was indicated that penicillin suspended in tiny droplets of propylene glycol retained germicidal activity for 90 minutes. The sponsors believe its use in this way is superior to taking by mouth because it avoids the destructive effect of intestinal juices on the drug.

The sponsors also claimed that continuous absorption of the remedy through the lungs would make up for rapid kidney excretion and in many cases—such as children having pneumonia—the treatment by breathing was preferable to the pain and disturbance of hypodermic injections. —*Review of Chi. D. Soc.*

The Committee on Dental Economics of the A.D.A.

This committee is making a study of the amount of treatment service patients are receiving, patient load and income of dentists. Twenty-four thousand civilian dentists in 19 states are being asked to supply data which will require only a few minutes of each dentist's time. The Committee states that "such surveys have proved to be valuable yardsticks by which practicing dentists can evaluate their economic standing, and obtain a realistic picture of their future earning possibilities."

ANNOUNCEMENTS

Dominion Dental Council

There will be a Dominion Dental Council examination held in Edmonton, from September 17 to 22. Class "D" fees should be in the Secretary office not later than August 1. Class "A" fees not later than August 15.

A. J. BRETT, *Secretary*, Regina, Sask.

Nova Scotia Dental Association

The 55th Annual Convention of this Association will be held at The Cornwallis Inn, Kentville, Nova Scotia, on August 2, 3, and 4, 1945.

ALLAN A. DUNLOP, *Secretary*.

New Brunswick Dental Society

The Annual Convention of this Association will be held in the Admiral Beatty Hotel, Saint John, September 17 - 18.

Eastern Ontario Dental Association

The Annual Convention of this Association will be held in Ottawa, September 23 - 25.

L. R. BRADEN, *Secretary*.

University of Montreal, Faculty of Dentistry

A Refresher Course in Minor Oral Surgery and Anaesthesia will be held in the new buildings of the University of Montreal, from October 8 to 12. The course will include theoretical and clinical subjects and is limited to twenty practitioners.

The fee for the course is twenty-five dollars. Applications should be filed with: the Dean, Faculty of Dentistry, University of Montreal, 2900 Mount Royal Blvd., Montreal, Quebec.

21st Fall Clinic, The Montreal Dental Club

One of the high lights of the above meeting, which on October 24, 25, 26, will present to the Dental Profession a program of clinics, essays, topic discussions, etc., will be the presence of the six members of the Central Nebraska Denture Study Club. This group, widely known in the middle Western States through many appearances at the Chicago Mid-winter Meeting, will make their first Eastern appearance on any program and will present, in addition to a limited attendance clinic, a six-hour progressive clinic on Balanced Functional Occlusion in Denture Service.

Among other clinics to be presented will be:

Acrylics in Operative Dentistry.....	Dr. G. A. Coleman, Philadelphia.
Bite Raising.....	Dr. C. C. Bastian, New York City.
Impression Material.....	Dr. F. Messerman, Cleveland.
Local Anaesthesia.....	Dr. J. J. Posner, New York City
Partial Dentures.....	Dr. J. S. Dohan, Montreal.
Amalgams.....	Dr. F. L. Miller, Fredericton, N.B.

Other features will include essays on Fluoride in Dentistry; Business Management; Topic discussions; Questions Forum.

Preliminary Programs will be available for distribution in August.

M. L. DONIGAN, *Director*, 1414 Drummond St., Montreal 25, Canada.

IN MEMORIAM

Dr. Garnet Leckie, Winnipeg, Manitoba, aged 65, died May 28. He was graduated from Northwestern University Chicago, in 1905, and practised dentistry in Winnipeg until 1941 when he retired.

For many years Dr. Leckie was active as a member of the Kiwanis club of which he served as president in 1932. He acted as song leader many years in several community and club activities.

He was a prominent member of St. John's Lodge, A.F. and A.M. and the Scottish Rite. He was a member of the Fellowship club and an active member of the Manitoba Dental Association, recently serving two years as president of the Provincial Board. He was also a director of the Children's Aid Society.

Dr. Leckie is survived by his widow, two sons, Cpl. Kenneth Leckie of the American Army Air Transport command, and Surgeon-Lieut. F. P. Leckie, R.C.N.V.R. on H.M.C.S. Bayfield, a daughter, five sisters and a brother.

Charles Norman Simpson, of Port Arthur, aged 61, Ontario died at his home on May 24, after three months' illness.

He was graduated from the Royal College of Dental Surgeons of Ontario in 1909. He began practice in Port Arthur where he continued until his death.

Dr. Simpson was a leading citizen in Port Arthur. He was a member of the Parks Board, a former alderman of the city, a deacon and trustee of the First Baptist Church, a past president of Port Arthur Horticultural Society.

He was an enthusiastic Mason; he was a life member of Shuniah Lodge A.F. & A.M., a life member and past master of Thunder Bay Lodge, a life member of Rhodes Preceptory and a member of Khar-tum Shrine.

He served two terms as president of Thunder Bay Dental Society.

Dr. Simpson is survived by his widow, two sons, one daughter and one sister.

Horace F. Goodfellow, of Sault Ste. Marie aged 64 died on June 4 at his home.

Dr. Goodfellow was graduated from the Royal College of Dental Surgeons of Ontario in 1907. He began practice in Sault Ste. Marie and had continued actively until his death.

He was a public spirited citizen in his community. He had served as Chairman of the School Board, Vice-President of the Rotary, President of Algoma United Church Summer School, President Sault Ste. Marie Country Club, and President of the Conservative Association. He was a member of the Masonic Order.

Dr. Goodfellow is survived by his widow and two sons.

Andrew Thomas Morrow of Maxville, Ontario, aged 75, died May 6. He was graduated from the Royal College of Dental Surgeons of Ontario in 1899.

At one time he was President of the Ontario Horticultural Society, Ontario Education Association and Reeve of Maxville.

Dr. Morrow is survived by his widow.

H. E. Bewell of Dauphin, Manitoba, aged 67, died May 28.

He was graduated from the Royal College of Dental Surgeons of Ontario in 1906 and was highly regarded in the province of Manitoba.

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ALCIDE THIBAUDEAU, D.D.S., A.I.D.O.

516, est, rue Sherbrooke, Montréal.

Le Docteur Théophile Côté

Encore un des nôtres vient d'atteindre le terme inexorable qui nous attend tous.

Il n'a sûrement pas accompli tout ce que sa jeunesse lui avait fait entrevoir de belles oeuvres possibles. A cinquante huit ans, miné par toutes sortes de désordres physiques et bien des inquiétudes, dont trop peu connaissaient la nature, il faisait le sacrifice de sa vie, pleinement conscient qu'avec elle finirait bientôt le temps des mérites. Sa mort, j'en suis certain, a dû édifier tous ceux qui l'entouraient.

Ayant appris au congrès qu'il était gravement atteint, j'allai lui rendre visite dès le lendemain, car je devais m'absenter de la ville. Je remercie la Province de m'avoir inspiré cette démarche. Je l'ai trouvé dans un lamentable état de faiblesse, mais en pleine possession de toutes ses facultés et capable de causer. Nous nous sommes parlé comme peuvent le faire deux amis véritables. Ma visite a semblé lui faire plaisir, et à sa conversation, j'ai compris qu'il l'avait désirée. La mort ne semblait pas l'effrayer, car nous pûmes en parler librement. Je l'encourageai de mon mieux, l'exhortant à profiter de ses souffrances, source infinie de mérites à qui sait s'en servir. Comme je me levais pour le quitter, il me tendit la main et me dit: "merci de ta visite . . . ne m'oublies pas dans tes prières. . . J'ai offert toutes mes souffrances en expiation."

Quand un homme meurt dans de telles dispositions, c'est qu'il y était préparé depuis longtemps. Le docteur Côté n'était pas un acteur.

Sa biographie sera nécessairement courte, par ce que je connais peu les détails de sa vie. Né à l'Île Verte, il fit ses études au collège de Rimouski après quoi il entra à

l'Ecole Dentaire Laval (aujourd'hui la Faculté Chirurgie Dentaire). Je l'ai connu étudiant. Il manifestait déjà des aptitudes plus qu'ordinaires pour la profession qu'il avait choisie. Il était doué d'une rare habileté manuelle, de solides connaissances théoriques et pratiques, d'un jugement peu commun, en somme c'était un des meilleurs praticiens de la province et chose très curieuse, il n'y faisait pas sa vie. Heureusement que le Dr Dubeau eut la bonne idée de l'attacher à l'Ecole. Il lui sauva la vie et rendit ainsi un grand service à la classe étudiante.

Issu de la campagne, il avait apporté avec lui les grandes qualités de sa famille et de ses origines. Chargé de cours en 1923-34, il vécut à l'Université quinze années de douce quiétude qui lui permirent d'ajouter à sa besogne quelques petits amusements favoris: délicats travaux d'horlogerie, collection de timbres, mots croisés, etc. Pendant tout ce temps, sa serviabilité, sa simplicité, son honnêteté lui créaient dans la profession, je ne dirai pas de nombreux amis, car il fréquentait peu, mais d'innombrables sympathisants qui l'admiraient et même l'aimaient. Sans grandes ambitions, totalement dépourvu de l'orgueil, indifférent aux honneurs, privé même de la fièreté légitime qu'aurait pu lui inspirer sa valeur personnelle, il avait bien espéré continuer sa vie sans heurts et sans complications, mais les conditions se brouillèrent autour de lui et comme tous il eut sa part de joies et d'amertumes.

S'il s'est trompé dans sa vie, et qui ne se trompe pas, nous pouvons dire à sa louange que jamais: l'intrigue, la haine, ou les basses ambitions personnelles n'ont été les motifs de sa conduite. Catholique pieux et convaincu, il a toujours été sincère. Malgré les obstacles et les misères, il a sûrement donné de bons exemples aux jeunes et à ses confrères.

Que la Providence sensible à nos prières et à ses mérites lui donne le repos éternel.

—Dr Alcide Thibaudeau.

*Manifestations Tuberculeuses de la Muqueuse Buccale**

par Gérard de Montigny, B.A., D.D.S., M.S.D.

Le bacille de Koch attaque tous les tissus et les muqueuses buccales n'échappent pas à cette infection.

Nous verrons les principaux signes cliniques des manifestations buccales de la tuberculose, c'est-à-dire, les affections tuberculeuses de la langue, des lèvres et de l'intérieur des joues.

Le dentiste d'un centre tuberculeux a l'occasion de voir, dans son service, ces lésions des muqueuses buccales et nous vous apportons le résultat de nos constatations.

Laissez-nous d'abord vous dire que ces manifestations tuberculeuses, dans la bouche, sont rares.

Nous n'avons pas de statistiques précises dans ce domaine, mais on concède, dans les milieux phthisiologiques, la rareté de ces ulcères.

Nous n'avons pas fait de recherches spécifiques pour déceler la présence de ces manifestations buccales; nos examens, chez les malades, ont d'abord porté sur leurs dents et leurs gencives.

* Communication présentée à la Société de Phthisiologie de Montréal, le 25 avril 1945.

La découverte de signes tuberculeux, dans la bouche, était amenée par une évidence toute clinique et non par une observation méticuleuse des muqueuses buccales.

On était d'avis autrefois que ces ulcères de la cavité buccale étaient presque inexistants; mais Brodsky, en 1942, cite de chiffres, qui changent la face des choses.

Cet auteur nous dit que sur 141 autopsies pratiquées sur des patients tuberculeux, on a trouvé 28 cas de lésions tuberculeuses buccales.

Tous les auteurs consultés s'accordent à dire que la tuberculose primaire de la bouche est rare, pour ne pas dire inexistante; ces ulcères sont presque toujours secondaires à une infection tuberculeuse des poumons.

Cependant des cas isolés ont été rapportés, où l'infection tuberculeuse était d'abord apparue sur la langue et sur les autres muqueuses de la bouche, chez des patients apparemment en bonne santé.

Mais on suppose que ces malades souffraient déjà de tuberculose, sans le savoir, et que ces manifestations buccales n'étaient pas réellement primaires, mais secondaires, parce que l'ensemencement le plus commun est celui où la lésion est causée par une généralisation disséminée de l'infection tuberculeuse.

Description de l'ulcère tuberculeux.

Quand le bacille tuberculeux attaque les muqueuses de la cavité buccale, la lésion caractéristique est un ulcère d'une couleur grisâtre ou jaune-gris, formant une plaque de muqueuse inflammée, constituée de petits nodules, donnant à la région une apparence granulée.

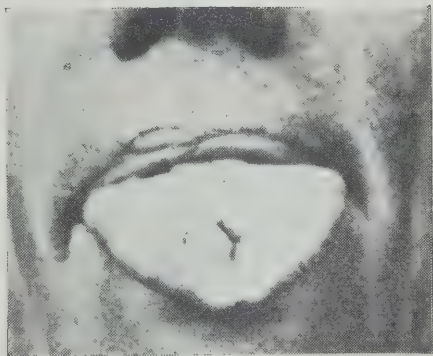
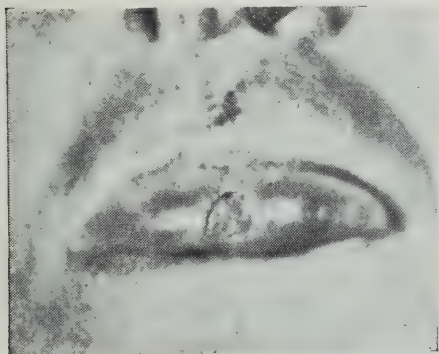


Fig. No. 1—Ulcère du bout de la langue.

Fig. No. 2—Ulcère de la langue, en forme de crevasse.

Cet ulcère peut aussi être constitué de papilles formées d'une multitude de petites excroissances aplaties.

La maladie se manifeste d'abord par l'apparition de nodules circonscrits sous la muqueuse, nodules, qui peuvent être uniques ou multiples.

Ces nodules finissent par s'ulcérer et forment une plaie peu ou très profonde, irrégulière de forme et d'étendue, entourée de bords minés et recouverts d'une membrane grisâtre.

Ces bords sont habituellement bien déterminés et plus rouges que la muqueuse normale.

L'épithélium est dénudé et la sous-muqueuse saigne à la moindre provocation, sans cependant suppurer.

Des tubercules se trouvent habituellement près de l'ulcère et donnent aux tissus adjacents une apparence lobulée.

L'ulcère tuberculeux, au début, n'est pas douloureux. Il le devient bientôt et les mouvements musculaires accompagnant la mastication, la respiration et la déglutition deviennent pénibles au patient. La sensation éprouvée ressemble à une brûlure.

Localisation.

La langue est le site le plus commun des ulcères tuberculeux de la cavité buccale; on les trouve sur le dos, les cotés, à la base et au bout de la langue.

Comme nous le disions plus haut, ces ulcères peuvent aussi se rencontrer sur les lèvres, à la commissure des lèvres, à la face interne des joues, aux replis muqueux, sur la gencive, au voile du palais, etc.

Diagnostic différentiel.

Ces ulcères tuberculeux de la bouche peuvent être confondus facilement avec des ulcères syphilitiques; leur apparence est à peu près identique et leurs signes cliniques sont à peu près les mêmes.

De la même façon, ils peuvent être pris pour des hypertrophies simples ou des carcinômes des muqueuses buccales.

Il faut absolument recourir à l'histoire de cas du malade, aux analyses de laboratoire, tant bactériologique qu'anatomo-pathologiques, pour préciser la nature de ces lésions.

Quand l'histoire de cas ne révèle rien d'anormal, ou quand une telle histoire de cas n'existe pas, il est bon d'éliminer le diagnostic de gomme syphilitique avec une épreuve thérapeutique mercurielle.

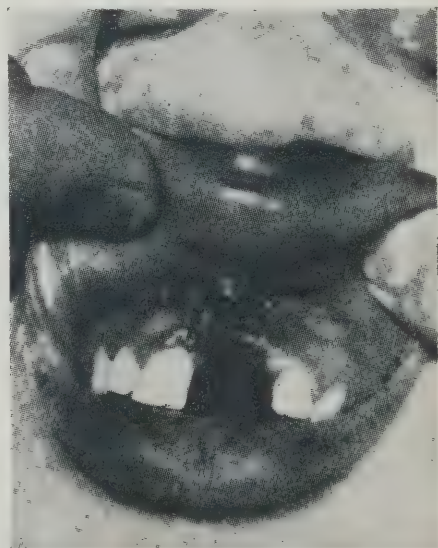


Fig. No. 3—Ulcer tuberculeux avancé, à la commissure de la lèvre.

Fig. No. 4—Ulcer tuberculeux de la muqueuse gingivale.

Il peut arriver que des lésions tuberculeuses de la bouche soient découvertes par le dentiste, avant que son patient n'ait soupçonné l'existence de foyer tuberculeux dans son organisme.

Le dentiste est alors en mesure de rendre un fier service à son patient, en le dirigeant chez un phtisiologue. Dans plusieurs cas, il est impossible de trouver le bacille; il ne faudrait pas faire de biopsie, avant de pratiquer un Wasserman, parce qu'il est très difficile de différencier une gomme et une lésion tuberculeuse, au microscope, à moins que le bacille de la tuberculose ne soit trouvé dans les tissus.

La microphotographie (Fig. No 5) nous montre une coupe d'un ulcère typique de la muqueuse buccale. Elle laisse voir une cellule géante tuberculeuse, entourée de lymphocytes. Au centre, on remarque des bacilles tuberculeux.

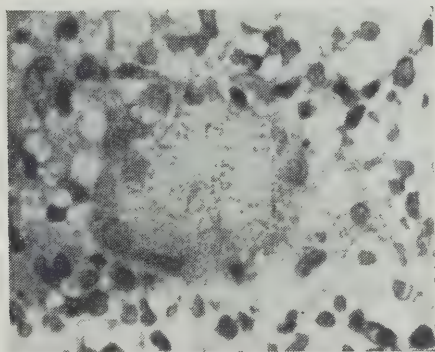


Fig. No. 5—Coupe d'un ulcère tuberculeux.

Causes déterminantes.

On a vu que la plupart des phtisiologues nient une origine purement locale aux ulcères tuberculeux, mais les attribuent à une métastase, à une extension ou à une généralisation d'une infection tuberculeuse, le plus souvent pulmonaire, ou à un ensemencement par continuité, dû à un lupus de la figure.

Des lésions tuberculeuses apparaissent sur la muqueuse buccale, si des blessures ou des érosions deviennent infectées par des bacilles contenus dans la salive.

Ces blessures ou érosions de la muqueuse buccale sont de toutes natures; elles sont occasionnées par des dents ou des obturations rudes ou coupantes; par des pièces de prothèse mal ajustées, par la présence de tartre sur les dents, sous la gencive.

Il est donc d'une grande importance que les bouches des tuberculeux soient maintenues dans un état de propreté impeccable et que leur denture soit surveillée pour:

- (1) ne pas ouvrir de portes à l'infection des muqueuses par les bacilles;
- (2) donner à ces malades un coefficient convenable de mastication.

Traitement.

Le traitement de ces ulcères tuberculeux va de pair avec le traitement général.

Les lésions buccales ne répondent pas à une médication locale, à l'exception de mesures prophylactiques.

Cependant les rayons ultra-violets peuvent amener une amélioration marquée et la disséction électro-chirurgicale est le traitement spécifique des ulcères tuberculeux.

Certains auteurs recommandent la cautérisation, les Rayons-X et l'élimination chirurgicale de ces ulcères.



Fig. No. 6—Ulcère tuberculeux, à l'angle de la lèvre, à la face interne.

Conclusions.

- (1) Les ulcères tuberculeux primaires sont rares, pour ne pas dire inexistants.
- (2) Les ulcères des muqueuses buccales, secondaires à un foyer tuberculeux pulmonaire, sont rencontrés assez peu fréquemment. Cependant, un auteur récent cite des statistiques, qui établissent la fréquence assez grande de ces ulcères tuberculeux de la cavité buccale.
- (3) Les ulcères tuberculeux des muqueuses buccales peuvent être confondus facilement avec des gommès syphilitiques et des tumeurs; seul un diagnostic différentiel, basé sur l'histoire de cas et sur des examens de laboratoire peuvent en établir l'identité précise.
- (4) Il n'existe pas de traitement local proprement dit pour ces ulcères tuberculeux; la radiothérapie profonde, l'électro-coagulation et l'élimination chirurgicale peuvent amener une amélioration. Le traitement de l'état général est le moyen indiqué pour la disparition de ces effets éloignés. Il va sans dire que les moyens prophylactiques s'imposent.
- (5) Tout hôpital ou sanatorium spécialisé dans le traitement de la tuberculose doit avoir un service de chirurgie dentaire bien organisé. La radiographie de toutes les dents, à l'entrée du malade, devrait être une affaire de routine, comme la radiographie des poumons. Le traitement des dents des tuberculeux devrait être entrepris pour chacun d'eux, pour:
 - (1) éliminer tous les foyers infectieux susceptibles d'être rencontrés dans la bouche;
 - (2) prévenir toute cause d'irritation des muqueuses buccales;
 - (3) procurer à ces malades une denture naturelle ou artificielle, qui leur permette de mastiquer leur nourriture et d'en tirer le maximum de rendement.

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L'Antichambre de la Maladie

Par le DOCTEUR F. WATRY

Président de la Ligue Belge d'Hygiène Dentaire.

(suite)

Encore une fois la Médecine Préventive permet des espoirs que détruirait la thérapeutique ordinaire.

C'est grâce à elle que sans charge excessive, non disproportionnée aux budgets généraux, des villes comme Bonn et Hanovre ont résolu le problème. Encore faut-il pour cela que le praticien comprenne qu'il est de son devoir en même temps que de son intérêt d'apporter sa part à la réalisation de cette tâche. La surveillance et la prophylaxie ne s'arrêtent point avec l'évolution complète de la dentition. Certes un adolescent dont le système dentaire aura atteint un développement complet en parfait état grâce de la Médecine Préventive ne sera pas pour cela définitivement immunisé.

Le système dentaire garde, en effet, avec l'économie générale des connections étroites qui le mettent de façon toute spéciale sous l'influence des moindres troubles biologiques guettant l'individu aux divers stades de son développement et qui s'intensifient avec l'existence active. Prédispositions morbides, risques professionnels, diathèse, pathologie héréditaire ont eu en quelque sorte leur chapitre stomatologique et ceci me permet d'attirer l'attention, plus spécialement de mes confrères, sur cette source de documents bien souvent méconnue que représente l'examen systématique de la bouche au point de vue de la symptomatologie médicale.

La collaboration que nous apportons par exemple dans les cliniques ou consultations où se fait un réel travail en commun est souvent riche à cet égard en révélations pour nos confrères d'autres spécialités; ici encore la médecine préventive générale trouvera dans le dépistage bucco-dentaire une aide aussi précieuse que souvent insoupçonnée.

A l'âge adulte enfin, l'individu tombe de Charbyde en Scylla. Si la carie dentaire est l'apanage peu enviable de la jeunesse et de l'adolescence, l'adulte voit fondre sur lui cette autre menace aussi redoutable: la paradentose. J'emploie expressément ce néologisme que d'un commun accord les membres du dernier Congrès Dentaire International ont adopté pour mettre fin à la querelle terminologique sur des appellations d'ailleurs tout aussi impropres les unes que les autres dont la plus connue était précisément la pyorrhée-alvéolaire.

Ces paradentoses, chose assez intéressante sont en incompatibilité, avec la carie dentaire et c'est ainsi que tel individu qui aura traversé sa jeunesse tout fier de son immunité se verra édenté plus tardivement, mais hélas tout aussi sûrement par la paradentose.

Ce complexe pathologique est fait d'une défiance du substratum ostéo-ligamentaire, déficience de cause générale, sur laquelle se greffent secondairement et à titre de complication des manifestations locales et régionales.

Ici encore la lumière se fait sur l'étymologie ouvrant de plus en plus larges les possibilités préventives. Tout autant, si pas plus que la carie dentaire la paradentose doit intéresser le médecin praticien. Sa présence ou sa menace sont étroitement liées

aux diathèses les plus fréquentes; la méconnaître pour le médecin s'est s'égarer sur la voie du diagnostic et du traitement.

Mon exposé est déjà bien long, et cependant je n'ai pas abordé le chapitre de la prophylaxie le plus banal, le plus courant c'est-à-dire l'hygiène journalière.

Oserais-je vous l'avouer, ce chapitre si simple, est à la fois le plus controversé. Si l'on est d'accord sur la nécessité de l'Hygiène on l'est moins sur ses modalités d'application. Tel principe comme celui de la brosse à dents, naguère encore discuté, est aujourd'hui impitoyablement sapé. Le dentifrice lui-même est matière à querelles. Celle-ci laissera peut-être sceptique l'observateur non averti qui voit que telle bouche scrupuleusement nettoyée n'échappe pas à la carie, tandis que telle autre d'où l'hygiène la plus banale est exclue se voit paradoxalement immunisée. La contradiction n'est ici qu'apparente, car l'immunité n'est hélas pas aussi simple que l'on se l'imagine et pour notre part nous nous inscrivons en faux contre ce précepte répandu par la publicité, "une dent propre ne se carie jamais".

Tempérament, diathèse, minéralisation, activité fonctionnelle, réaction du milieu buccal, harmonie morphologique tels sont quelques-uns des facteurs intervenant dans la protection bucco-dentaire et la contradiction apparente due à un examen superficiel du problème ne doit pas être mise au passif de l'hygiène journalière dont l'observation s'impose en tout âge et en tout lieu. La vérité à notre sens est qu'il n'y a pas d'hygiène standardisée l'hygiène bucco-dentaire doit ajouter à des principes généraux des modalités individuelles pour la prescription desquelles le stomatologiste devra être consulté.

Quant à la brosse-à-dents, sa condamnation dans certains esprits est due à cette conception standardisée de son emploi.

Nous serons prêt à l'abandonner le jour où on aura trouvé mieux, mais nous considérons comme une erreur psychologique profonde de condamner le seul élément de prophylaxie qui jusqu'à présent ait quelque peu pénétré la masse, sans le remplacer avantageusement. La brosse-à-dent judicieusement choisie et judicieusement employée doit rester à la base de l'hygiène bucco-dentaire journalière.

Mon temps de paroles s'est écoulé sans qu'il me soit permis, ce que je n'avais jamais espéré d'ailleurs, d'épuiser mon sujet.

Il me reste à me résumer; à formuler des conclusions que je synthétiserai dans cette formule:

Morphologiquement et fonctionnellement le massif maxillo-facial constitue l'antichambre de l'organisme. Particulièrement exposé aux agents et aux facteurs pathologiques il devient aisément l'antichambre de la maladie.

Les principales affections dont cette région peut-être le siège présentent deux caractéristiques qui en précisent l'importance et le danger: leur fréquence qui en fait un véritable péril social, leur caractère définitif et l'impossibilité d'y apporter sur ce même plan social les remèdes curatifs et substantifs.

Devant une telle situation il n'est pas question de s'en tenir à la question à la constatation d'une carence thérapeutique dangereuse non seulement pour cette région mais encore par la brèche presque indéfendable qu'elle offre aux offensives de la maladie. Tous nos efforts doivent se tourner vers le dépistage précoce, la prophylaxie et la Médecine Préventive.

Docteur Théophile Côté

Ami: de tous il est parti à l'âge de cinquante-huit ans après trois mois de souffrances physiques et morales.

Le docteur Côté fut un dentiste qui aima sa profession et un professeur digne de ce nom. Homme avenant, il se faisait une gloire, au laboratoire, au cours ou dans la vie privée, d'être utile aux nombreuses générations qui ont défilé devant lui; il leur inspirait l'intérêt des sujets développés. Du premier au dernier de classe chacun subissait son influence.

Sous son inspiration plusieurs réformes ont été apportées dans l'enseignement de la Faculté de chirurgie dentaire: initiatives qui ont influencé et guidé une série de chirurgiens-dentistes vers un idéal qu'ils n'auraient jamais pensé atteindre sans sa coopération.

En 1943, lors du déménagement de la Faculté à la montagne, sentant déjà les premières crises du mal qui lentement le conduisait à la tombe, il sacrifia ses vacances; durant trois mois il voyagea de sa maison de campagne au nouvel édifice pour se rapprocher de l'architecte, gagner les améliorations jugées indispensables, surveiller les ouvriers, avec le résultat, qu'en octobre, à l'ouverture des classes, les salles de prothèses étaient à peu près terminées. Ce fut à cette époque, si je ne me trompe pas, qu'il donna le meilleur et le plus utile de lui-même.

Fils de cultivateurs, ses études classiques terminées, ne voulant pas tromper l'espoir de ses père et mère, il revêtit la soutane, enseigna chez les clercs Saint Viateur au collège de Lévis; bien conseillé, sans vocation, un an plus tard, il quitta le clergé au grand chagrin des siens et se prépara à étudier la chirurgie dentaire.

Faute de capitaux, il lui fallut gagner son pain quotidien, "primum vivere" aimait-il à dire comme une excuse d'être entré au bureau de la poste où il travailla le soir pendant au moins cinq ans. Le salaire remis lui permit de payer ses cours, sa pension et quelques douceurs jusqu'à ce qu'il reçut son degré de doctorat en chirurgie dentaire, en 1919.

Licencié depuis peu, il fut nommé démonstrateur puis professeur de prothèse, de matière médicale, de pont et couronne enfin directeur des études. Depuis vingt-cinq ans, Théo Côté est lié à l'histoire de la Faculté de chirurgie dentaire.

Malgré une foule d'influences indues travaillant contre lui, il a suscité un mouvement de perfectionnement qu'il dut beaucoup à son impulsion personnelle, surtout dans ces dernières années.

L'influence du professeur Côté n'est pas à nier. Parce qu'il voua ses énergies à l'enseignement il a imprimé une marque sur les générations d'étudiants qui se sont succédés devant sa chaire.

Humble il n'essaya pas de s'élever mais il mit son travail au service de la cause qu'il aimait davantage: la chirurgie dentaire. Que de tâches harassantes lui sont ainsi échues sans que jamais il ne proteste de ces besognes de toutes sortes qu'on aurait pu lui éviter.

Il a donné le meilleur et le plus utile de lui-même.

Son exemple pourra suffire à l'éducation des générations futures, il fut un homme d'énergie qui ne négligea jamais ses tâches et ses devoirs malgré les difficultés qu'il devait vaincre. Il fut utile par son esprit de conciliation à une époque où la division régnait chez un grand nombre de dentistes.

Sa mort laisse un vide difficile à combler non seulement pour son épouse et ses enfants mais à l'université pour ses amis. Il était sincère car jamais à ma connaissance il abandonna dans l'adversité ceux qui lui avaient rendu service. En colère blessait-il quelqu'un injustement il avait de repis qu'il fût pardonné?

Nous prions madame Côté et sa famille d'accepter nos condoléances.

Que la terre lui soit légère.

—Paul-E. Poitras.

Montréal 9 juin 1945.

2043 rue Saint-Denis.

Cours de Perfectionnement à l'Université

Le personnel du Service de Chirurgie et d'Anesthésie de la Faculté de Chirurgie Dentaire de l'Université de Montréal offre aux membres de la profession un cours de perfectionnement dans ces matières, du 8 au 12 octobre 1945.

Ce cours est divisé également en leçons théoriques et cliniques et repasse toutes les opérations, que le dentiste-praticien est appelé à faire dans ce domaine.

Le nombre des inscriptions à ce cours de chirurgie buccale mineure et d'anesthésie est limité à vingt dentistes et les frais du cours sont de vingt-cinq dollars.

On s'adresse au doyen, Faculté de Chirurgie Dentaire, Université de Montréal, 2900 Boul. Mont-Royal, Montréal.

l'Article du docteur Philippe Hamel

Malgré toute notre bonne volonté, nous ne pourrons donner la suite de cet important article avant le mois d'août, faute de place.

Nous osons croire que les lecteurs ne seront pas froissés de cette interruption forcée.

—La Rédaction.

In Memoriam

A la dernière minute nous apprenons la mort du Docteur G. D. Coza de St. Jean. Nous prions la famille d'accepter nos condoléances.

—La Rédaction.



Courtesy Dept. Mines and Natural Resources, Manitoba.

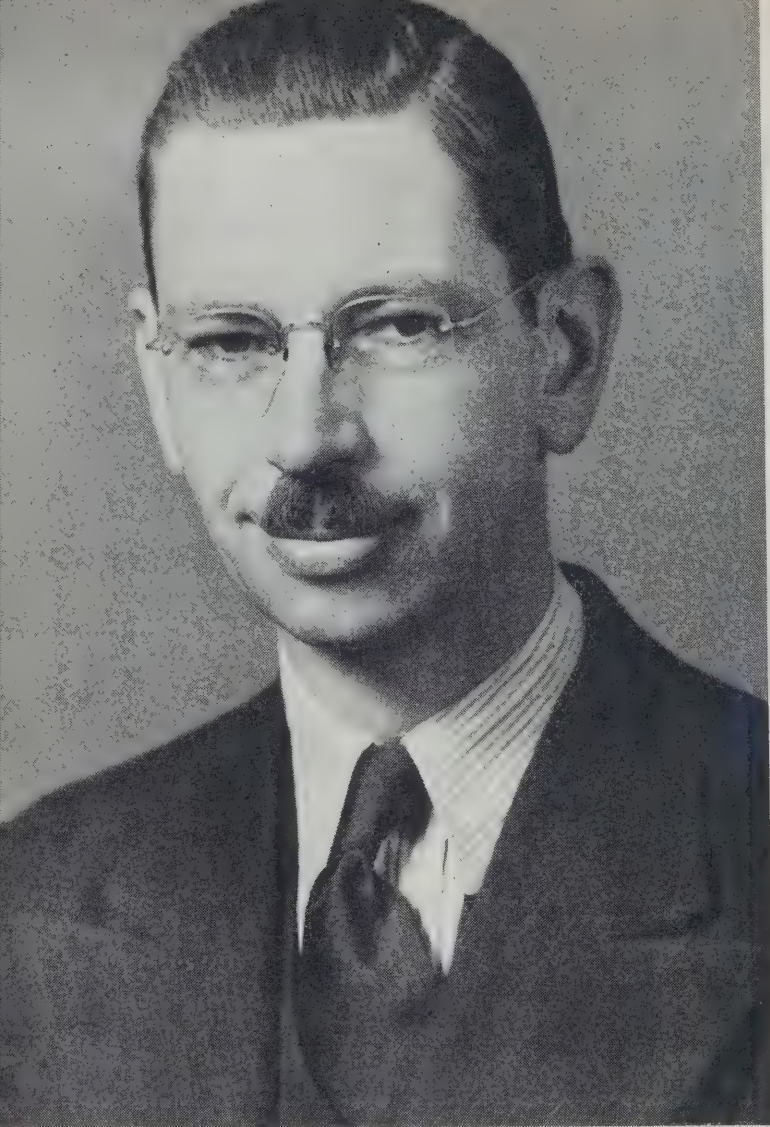
CANADIAN PACIFIC RAILWAY LOCOMOTIVE No. 1

The "Countess of Dufferin" adorned with greenery and flowers in the summer time, now rests in retirement in a little park near the C.P.R. depot, Winnipeg. This locomotive arrived in Winnipeg in October 1887 and was the first in Western Canada.

In a large southern hospital the following words are framed where every nurse coming on a floor faces them and I'm sure it reminds her daily that she has a duty beyond her professional ones.

"I am a little thing, with a big meaning. I help everybody. I unlock doors, open hearts, dispel prejudice. I create friendship and good will. I inspire respect and admiration. Everybody loves me, I bore nobody, I violate no law. I cost nothing. Many have praised me. None have condemned. I am pleasing to those of high and low degree. I am useful every moment of the day. I am COURTESY."

The Dental Assistant



VICTOR M. LLOYD, D.D.S.

Edmonton, Alberta.

President of the Western Canada Dental Society.

Graduate of the University of Toronto, 1927.

President Edmonton Dental Society 1940-41.

Convention manager Western Canada Dental Society convention
in Edmonton 1941.

Member of the Operative Dentistry Staff, University of
Alberta 1928-1939.

Past President Edmonton Kinsman Club, 1937.

Past National Vice-President and Past District Governor for
Alberta of Association of Kinsman Clubs.

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COMPLEMENTAL FUNCTIONS OF MEDICINE AND DENTISTRY

By A. E. ROWLETT, Leicester, England,
Treasurer of Fédération Dentaire Internationale

THE relationship of Dentistry to Medicine has been the subject of much discussion, largely unprofitable, neither side having succeeded in bringing forward an argument strong enough to convince his opponent.

It is cold comfort to know that the problem has proved equally puzzling to all other countries of the world, for there is no land to which we can point and say, "That is the way, let us walk therein."

Two schools of thought exist, diametrically opposed; at one pole are ranged those who claim that Dentistry should be a medical speciality, comparable to such specialities as gynaecology, radiology, ophthalmology. At the other pole stand the Isolationists, their contention being that Dentistry is a profession '*sui generis*' and should be completely divorced from Medicine. Dentistry, they say, is strong enough to stand alone.

In Continental Europe these opposing groups were known as Stomatologists and Odontologists, although both held a University degree carrying the title of 'Doctor'. In some European countries a medical qualification was obligatory upon every dental surgeon, but this dental reputation gives no encouragement to other countries to copy their example and there is justification for the statement that in these coun-

tries dentistry proper was a secondary consideration in the curriculum.

Self-determination of Dentistry as a profession is most pronounced in Canada, and, in that country, as in the United States, the dental profession is autonomous and more inclined to separation. In no country in the world, except possibly Sweden, does a more genuine desire exist for co-operation and co-ordination between the two professions than in Great Britain. This is an exceedingly encouraging factor, all-important indeed, and may be recommended for contemplation to the pessimists and down-hearted.

In attacking this problem, there is no place either for a repressed complex or an inferiority complex; we must boldly face facts and the implication of facts, and we must not have a shadow of doubt that we can, and we shall, successfully discover what are the rocks on which former attempts have foundered and the course that leads to the open sea. In approaching any complex problem with the intention of representing a solution, the investigator must guard against two dangers, inaccuracy and bias, for all enthusiasts are prone to yield to the temptation to build up theories and afterwards to turn them into articles of faith.

The former of these two dangers I shall attempt to escape by definition of

terms; from the latter, no complete escape is possible, the best protection available being the realization that bias is always present.

The desirability of a preliminary definition of terms in the development of an argument gains support from the confession of one of the greatest classical school-masters, who relates that in his youth any progress in the study of Statics was hampered by the persistent, but erroneous conception that a Danish steel guard was a place where the Danes stored steel.

In our profession it is rare to find knowledge of the exact structure and functions of bodies such as the General Medical Council, the Dental Board, the Dental Benefit Council, the Joint Advisory Dental Council, and even of the Representative Board of the British Dental Association, among the members of our Association. I am informed by my medical colleagues that a similar state of affairs exists in their own profession.

An unhampered exchange of ideas is an essential factor if deliberations are to be fruitful in results and if agreement is to be reached over any problem which is '*sub judice*'. It appears to me that much of our failure in the past may be laid down to what Lord Birkenhead described as "Loose speaking that is bred of loose thinking out of ignorance."

DEFINITIONS

Medicine in its broadest sense includes the whole of the healing art, but for the purpose on hand the term is restricted to "the art of restoring and preserving health, especially by means of drugs, regulation of diet and habits of life, etc."

Surgery is the manual treatment of disorders or injuries of the body, briefly "operative therapeutics."

Dentistry is a term that does not lend itself to such a concise and neat explanation as medicine or surgery. It will be remembered that registration under the Medical Act of 1858 provided for two classes of practitioners, the

physician and the surgeon. The L.R.C.P. and the M.R.C.S. were both registrable diplomas and conferred the right to practice. It was not until 1885 that these independent rights were swept away and the conjoint Board was established. Henceforth all medical practitioners must hold both a surgical and medical diploma or degree.

Existing definitions of Dentistry have either been couched in terms too general to serve for comparison with the definitions of medicine and surgery given above, or else they have been incomplete and are thereby inaccurate. Gould's Medical Dictionary, Fourth Edition, 1935, defines Dentistry as — "Dental Surgery, embracing everything pertaining to the prevention and treatment of diseases of the teeth." The Concise Oxford Dictionary, under the heading 'Dentist', is content with simply writing 'Tooth Doctor—hence Dentistry'. A better, but still not entirely satisfactory definition is the following: "Dentistry is an art based upon a science; it is an integral part of the Health Service for the community. It is directly concerned with the teeth and the surrounding oral tissues, and indirectly with the whole body."

This last definition is correct, but does not sufficiently elucidate and is more correctly described as an incomplete statement of fact than as an adequate definition of terms.

The main difficulty that stands in the way of formulating a satisfactory definition is that the dental tissues, particularly the enamel, dentine and cementum, are quite unlike any other tissues of the body. Thus it comes about that although it is not incorrect to speak of dental surgery as the manual treatment of diseases and disorders of the teeth, nevertheless, owing to the singular structure of these dental tissues, operative therapeutics in dentistry is of a perfectly different nature to the operative therapeutics of general surgery.

In general surgery the repair or restoration of tissues, lost or damaged by accident, disease, and operation, is car-

ried out by the *vis naturae medicatrix* or in other words, by scar tissue.

In the dental hard tissues there is no repair by scar tissue; the lost tissues must be restored by careful, exact, technical skill of the dentist, e. g., fillings, crowns, bridges, etc. The cure and treatment of dental tissues forms an important part in the daily life of all general practitioners of dentistry and the work of a dentist is of so specialized a nature that the description of dentistry as an art and a science—directly concerned with the teeth and indirectly with the body—may be applied conversely to Medicine, as an art and a science indirectly concerned with the teeth and directly with the whole of the rest of the body.

The maxim "*ne sutor supra crepidam*" (let the cobbler stick to his last), as applied to the dentist in reference to constitutional conditions, is equally appropriate to the medical practitioner where dental conditions are concerned.

In those cases in which both dental and constitutional diseases are present consultation between dentist and doctor is indicated, a mode of procedure generally followed by reputable dentists and doctors.

OBLIGATORY MEDICAL QUALIFICATION OF DENTISTRY

This illustration of the complementary functions of dentistry and medicine is being recognized and the doctor is realizing slowly, but steadily, that a medical education no more enables him to pass judgment upon dental disease than does the curriculum of the dentist fit him to decide upon constitutional problems. At this point, I hear some of my readers query, "Is not this argument in favour of all dentists taking a medical qualification? Would it not then enable him to co-operate more fully with his medical colleague?" The answer to this is, "Yes", undoubtedly such an added course of study would enable him better to understand the constitutional side of the problem. This however, is a minor consideration. It must be understood that the modern dental curriculum turns out dentists

adequately educated for intelligent co-operation with the medical man. There is no reason to believe that the patient suffers from the fact that the specialized medical knowledge possessed by his doctor is not completely duplicated by the dentist. There is need possibly in the dental curriculum for some alteration, and it may be an extension, of the medical training of the dental student, and there is equally a need for steps to be taken to remedy the lack of knowledge of dentistry of the medical students training. It is generally agreed that the approach should be mutual and not unilateral.

In Great Britain the harmonious evolution of dentistry has been hampered by a great illusion; doctors, dentists and laity alike have been in the habit of taking for granted the dogma that the acquisition of a medical qualification is the criterion of a better dentist. As an article of belief, this concept is false and dangerous. It is an undeniable fact that the science of dentistry is deeply indebted to men with a medical qualification and there is a consensus of probabilities amounting to a certainty that similar contributions will come from similar sources in the future. It must not be overlooked, however, that some of the most famous men in our profession in Great Britain were very poor operators.

While admitting unreservedly that the dental curriculum alone is not an educational instrument likely to yield the type of men who are essential for the advancement of dentistry as a whole, we are faced by the undoubted fact that the mouths of patients of dentists holding a double qualification are not in any way better cared for than the mouths of patients of a dentist without a medical qualification. The truth of this contention is most clearly demonstrated by a comparison between the dentistry in Canada and America, where a double qualification is very exceptional, and the dentistry in those countries, e. g., Austria, Belgium, Bulgaria, Czechoslovakia, Finland, Hungary, Italy, Rumania and Spain, where

a medical qualification is obligatory.

The argument so far has not completely carried out its intention, which was to elucidate the problems of the relationship between Medicine and Dentistry. On the contrary the situation is paradoxical, for on the one hand it would seem that the doubly qualified men are essential for the advancement of Dentistry, and on the other hand, in those countries where a medical qualification is obligatory, dentistry is not progressive. The explanation again is that the functions of Dentistry and Medicine are complementary. Of those countries mentioned, however, an exception should be made in the case of Austria, which stands in a class by itself, due to the outstanding work done by men of the school of Pichler and Gottlieb.

Nevertheless, in spite of the fact that, in my opinion, the argument I have used is correct and the explanation I have given is irrefutable, it does not seem entirely satisfactory, nor am I confident that it will prove convincing. Where then lies the failure of the presentation of the argument? I believe that to carry complete conviction we must undertake one more definition, that of "function."

Function is the activity proper to anything, the mode of action by which it fulfills its purpose. If we analyze this definition, it will at once become apparent that function is relative to environment and, since the Medicine and Dentistry of which we are treating is associated in everyone's mind with post-war conditions, I propose to develop my argument with that point of view.

POST WAR IDEALS

The optimistic predictions and rosy promises of the world after the war are for the most part, aptly described by Milton in the lines,

"For so to interpose a little ease,
Let our frail minds dally with false
surmise."

There is, however, one prophecy which may be uttered with a good assurance that it will be verified by events, for

it is in accordance with human nature and the teaching of history. The first reaction of the world to a 'total war' will be a striving for 'total peace'. For the purpose in hand 'total war' may be described as a state of society in which every man, woman and child in the community may be considered as a legitimate secondary military target, the foulest doctrine ever conceived by man. 'Total peace' is a state of society in which every man, woman and child is a legitimate primary, humanitarian or philanthropic target. In this target the gold centre may be described as positive health, moral, mental, and physical. This is the goal of Sir William Beveridge's Pilgrim's Progress when he has overcome the five giants of Want, Disease, Ignorance, Squalor and Idleness.

Under the heading "Assumption B—Comprehensive Health-Rehabilitation Service," Sections 4 to 6 of the Beveridge Report it is stated: "It is a logical corollary to the payment of high benefit in disability that determined efforts should be made by the State to reduce the number of cases for which benefit is needed." In Section 427 it goes on to say: "The assumption made here is in accord with the definition of the objects of medical service proposed in the draft Interim Report of the Medical Planning Commission of the British Medical Association." This was to: "Provide a system of medical service directed towards the achievement of positive health, of prevention of disease and the relief of sickness." The same ideal is postulated in the booklet published by the B.M.A. in November, 1938, with the title, "A General Medical Service for the Nation." On page 8, under "General Principles," Section 6, we read: "The system of medical service should be directed to the achievement of positive health and the prevention of disease, no less than to the relief of sickness."

In Section 435 of the Beveridge Report is to be found the following paragraph: "There appears to be ground for regarding a development of preser-

vative dental treatment as a measure of major importance for improving the health of the nation." And in the preamble of the same publication it is stated as the opinion of the majority of the medical profession that: "What is urgently needed . . . is an intergraded policy of national health."

The same note is sounded, namely the vital necessity of the prevention of disease as a fundamental part of all health planning for the future by every organized body which is concerned with the health of the community, whether it be governmental, medical, dental, or merely lay. There is indeed considerable difference of opinion as to the precise structure of the service, but none at all as to the theoretical principles which it ought to fulfill. It is a simple statement of fact that every single individual in the country accepts as axiomatic the old proverb that "Prevention is better than cure," however slight their desire to undergo the self-discipline which the logical corollary of this accepted premise naturally implies. It is on this fundamental ground of positive health that the complementary functions of Medicine and Dentistry are to be looked for.

PROPHYLACTIC ATTITUDE OF MIND

May I venture to refer to a paper which I wrote during the last war entitled "The Prophylactic Attitude of Mind," as it is this title which appears to me to express the ideas and ideals which are in solution in the minds of the younger members of our profession and can be seen crystallizing in the many articles published in the medical and dental journals from younger members of the profession in the forces.

By "Prophylactic Attitude of Mind" is meant the unreserved acceptance of a definite principle and the further admission that logical corollaries of this original proposition are equally sound in principle, but not necessarily expedient to apply in practice. This is analogous to the principle of "absolute good" and the "good for us".

The principle of prophylaxis finds ex-

pression in such terms as "sanitary science," "preventative medicine", "hygiene" and in such popular phrases as that already mentioned, "prevention is better than cure" and "a stitch in time saves nine," or again "artificial health is no more an enduring or satisfactory asset leading to progress of a nation than is artificial prosperity."

I suppose it would be difficult to discover a single member or any health organization in Great Britain who would reject the above as untrue. Some of the older and more experienced members who have seen their various hopes shattered in the past by unresponsive committees or an apathetic public, may murmur "too idealistic," or "quite impracticable." Such criticism leaves my withers unwrung. My argument is addressed to the younger generation whose task it will be to look after the health of the community in the future. We of the older generation must expect less deference to seniority. Young men and women of today, whom the war has cheated of some of the best years of their lives, will not hesitate to turn upon their elders and say, "We young people may not have the experience of age and are perhaps rather too enthusiastic, but in any case we can't make a bigger mess of the world than you have done, which mess by the way we have had to clean up."

It is the shallowest political thinking and a fundamental error to omit from our calculations for one instant the temper and ideals of the youth of the nation, for it is the part that these young men and women will play in dentistry in the future, that is far greater than their numerical strength in the profession.

The whole of the suffering world is buoyed up with hopes engendered by the Atlantic Charter and the Four Freedoms voiced at Washington, London, Moscow, Casablanca and Quebec. This is a time of great opportunity both for success or failure. Let us keep our feet on the ground by all means, but there can be no greater menace to mutual understanding than the cynical,

unimaginative realists in high places who stamp out the least spark of enthusiasm with the broad damp foot of a hippopotamus.

THE PROPHYLACTIC ATTITUDE OF MIND IN ACTION

There is a well known French proverb which declares "*Ce n'est que le premier pas qui coule*," and the dentist should approach every case which comes under his care for regular and systematic treatment with this proverb in mind. Here are two practical illustrations taken from an ordinary, conservative, middle-class practice, situated in a provincial town where dentistry and medicine worked very happily together.

The first case I would state is that of a young child with all its temporary teeth in place making his first visit to a dentist with his mother or nurse. This is, of course, largely a visit of consultation and is to impress upon the mother that this is, or should be, the most important consultation in the whole of the child's life so far as dental health is concerned. Notes are taken under the following headings:-

The Family History, including bottle or breast feeding, childish complaints, operations, the type of the child, appetite—whether healthy or fanciful, e.g., will not eat fish, meat, eggs, crusts, etc.

Condition of Mouth and Teeth, type of saliva, active or lazy tongue (this can usually be confirmed by the child having a sweet biscuit and milk half an hour before the visit and not followed by toothbrushing), type of teeth, etc.

Occlusion, naso-pharyngeal, condition (including the presence of glands, tonsils), habits of breathing, mouth or nose.

Prognosis, and then finally.

Advice. This consists of habits of oral hygiene in the broadest sense, (including diet, mastication and the use of the tooth-brush). It should be impressed upon the mother or nurse the vital necessity of co-operation between the patient and dentist and that our goal

is prevention of dental disease. At a later visit and subsequently at each visit up to the age of 12, in order to bring home the importance of what Sim Wallace has called "earnest mastication, a gnatho-dynamometer and hand dynamometer readings may be taken. These amuse the child and impress the mother in addition to giving valuable information as to muscular development.

Any deviation from the normal or any manifestation of unusual susceptibility to caries or dental disease is at once reported to the medical practitioner. As soon as feasible, models of the child's mouth should be taken and boxed for future reference. If necessary, a consultation is held with the medical man and in any case it is impressed upon the mother that co-operation between the patient, the medical practitioner and the dentist is vital and that we are treating first the patient, secondly the mouth, and thirdly the tooth.

The second example is that of the adult patient who has neglected his teeth to a greater or lesser degree. In this case, the mode of approach is rather different. The period of active growth is past, disease has manifested itself and the dentist has a dual function, namely to restore the mouth to health and function and, in co-operation with the patient to maintain that health. The ideal should be permanent restoration, whether it be fillings, crowns, bridges, removal prosthesis, or full prosthesis, although I know it is impossible to control absorption of alveolus and the soft tissues under dentures completely.

At this point I wish to draw attention to the importance of the permanent filling in building up the sort of dental profession we all hope to see. Nothing contributes more to the proper appreciation of the dental profession by the patient than permanent work and nothing detracts more than fillings which are only semi-permanent and fail in a short period of time.

MEDICAL AND DENTAL CO-OPERATION

X-rays and transilluminations of sinuses and a dark ground examination of the mouth flora was a routine procedure in my practice. With children bite-wing x-rays were taken at every visit without additional fees. Any abnormal condition which might have a constitutional bearing was reported at once to the medical adviser. Except for a single administration of simple analgaesic tablets, dietetic and drug therapy was always a matter for consultation in which the doctor's decision was always the deciding factor. It would have been quite impossible for me to have given adequate dental service to my patients without medical co-operation and advice and the happy relationship which existed in the town in which I practised was the direct result of a mutual recognition of the complementary functions of dentistry and medicine.

I have purposely selected two examples of ordinary private practice, the small child at its first visit and the adult with a somewhat affected mouth because of their general occurrence in any middle-class practice.

Far stronger arguments could be adduced of the complementary functions which exist between medicine and dentistry had I brought forward the cases of the expectant mother or the pre-school child of the elementary schools where the hope for an amelioration of the present scandalous condition of the mouths is the co-operation between the two professions.

One vital aspect of medical and dental co-operation has received scant notice. No one denies the priority claim of the children of the country upon the health services of the community and all honest experienced health workers agree that no real improvement in the health of the child can be hoped for without radically altering the

family environment, that is to say the proper housing and adequate nutrition. Whilst these adverse factors prevail, never can the entrant to the elementary schools possess a standard of general and dental health comparable to that of the children of the well-to-do. It follows, therefore, that as integral parts of the specially educated health service of the community, every dentist and every doctor should lose no opportunity to bring this fact of environment home to the nation. That a child should be underweight and under developed owing to these environmental factors is recognized by a large proportion of the nation, although they are somewhat apathetic under this knowledge, but it is not equally comprehended that the dental health is just as much dependent upon these factors as is the constitutional health. An insistence upon the divine right of childhood to a healthy parentage and a harmonious environment is the true test of a prophylactic mind in action.

Hygiene is a road upon which dentistry and medicine are fellow travellers, a task in which they should be co-operators and in which their complementary functions contribute greatly to the health and happiness of the whole community. The mind of the nation will not be in a normal state after this war. We know the exaggerated hopes of optimists are not likely to be fulfilled. Nevertheless, we can travel hopefully with a reasonable assurance of a modicum of success. An unsympathetic or harsh reception of the enthusiastic schemes of the younger generation will certainly cause a sharp reaction and may result in a decided swing to the left which may be difficult to control, and what may be desirable or even ideal in the U.S.S.R. need not necessarily be equally suitable in this country.

Verbum sat sapienti.

Who is there who does not think his own cause just. — Erasmus.

CANADIAN DENTISTRY

Condensed from Address by DR. R. A. ROONEY of Edmonton, retiring
President of the Canadian Dental Association*

AFTER a good many years of service in various capacities, local, provincial and national, it seems to me that dentists as a group pay less attention to the administrative business and potentialities of their profession than any other calling. It has always remained a mystery why every other group or nearly every other group in the country, some of them of comparative unimportance in our national economy should maintain such aggressive, vociferous organizations while dentistry which should and could be one of the most cohesive and closely developed organizations in Canada, should maintain itself only through the interest and activity of a few men who do give their time and their energy, solely through love of their work and their hope that the profession will take its proper place and do its proper job in establishing and maintaining the health of our Canadian citizens.

Your executive body has worked hard and earnestly to the end that dentistry may meet its professional obligations. Sometimes the results of this work were negative, but sometimes definite benefits were obtained, results that were reflected, as all of us like to be affected, in our pocket books. But, more important than that, is the foundation that has been laid for the participation of dentistry in any planning for social security for Canada and Canadians, now and in the future. The plans laid down for the health and welfare of the men and women who fought our battles are sound and sanely gratifying. Let us hope that dentistry maintains and develops its position and its service to the fullest extent.

The future of our profession is in our hands, is of our own making. Because of the solitary nature of our work, we are apt to continue as individualists yet that is what we must avoid in every possible way. We must broaden our relationships, not only within the ranks of our calling, but also by a quickening interest in our whole local and national economy. We must believe that the tooth we are treating is not just another tooth to be filled or a crown or a bridge to be placed but another step in building the ladder of health for that patient.

We should and must develop an understanding in public health matters. I wonder how many of you have thought of the obligation that would be imposed on dentistry if Federal plans for Health Insurance legislation were to come into effect in, let us say, a year from now. Our Association has placed an age group limit on those whom we could care for. Taking a cross section of that low age group, as they come to your office, divide them into the population of that age that you believe is the correct ratio for your district, then ask yourself if you believe the dentists in your area could put them in a healthy oral condition and at the same time care for your normal number of adult patients, not forgetting that the parents of those children will become more dentally conscious through the association of ideas? Do you believe you can do it? I wonder.

This is our last meeting under our old form of administration. After today we will have a new and more effective operational charter but this alone does not guarantee greater effectiveness nor a more useful exist-

*Presented at Winnipeg, June 18, 1945.

once unless you and I, as individual dentists, acknowledge our debt to our brother practitioners and begin making down payments on that debt.

For some time past, numbers of our men have been returning from military service to private practice; increasing numbers will be released from service as time goes on. Those of us who remained in our offices have no reason to belittle the job we have done. It has been long and arduous work but we must not forget that we have maintained our practices and our homes, that those who enlisted gave up their practices and in many cases their homes in their conception of their duty to their country. It is impossible to over emphasize the part that we civilians can play in easing these men back to the regular channels of their lives with as little discomfort and disorganization as is possible. Perhaps we can accept a leaf from the book of British Dentistry and, where we know the previous dentist of some of our present patients, can suggest to them that the man they knew and trusted before the war is back in his office and ready to care for them. That is a small bit to do but can be more than a mere gesture. It is sound application of the Golden Rule.

There is the problem of office space, at such a premium now and for some time to come. Perhaps some of you have space where another man can place his chair. There is also, as a starter for civilian practice, the services extended to ex-service personnel by the several federal departments. This should be turned over to men returning to practice. Provincial authorities too are developing health plans which include dentistry. These positions should first be made available for ex-service men. It is probable that industrial dentistry will also increase to a marked degree. All such appointments should be ear-marked for returned men.

It is likely that the young man who enlisted immediately on graduation or who graduated under the accelerated

courses with the assistance of the Department of Defence will want to try his hand at private practice. That is his privilege and you, with well established connections, and possibly with the thought of easing up on your office hours should not forget that these boys need a helping hand.

The Canadian Dental Association has just concluded a two day meeting of its Council on Dental Education, composed of the Deans of all Canadian Dental Schools and representatives from all provinces which have no schools, at which plans were formulated for refresher and graduate courses on a coordinated basis between the Canadian Dental Association, the Dental Corps, the Department of Veterans' Affairs and other Federal departments. Through a survey conducted by the Canadian Dental Association and the Corps, the officer personnel indicated that they wanted these courses and what subjects they wanted.

A booklet has been prepared, endorsed by the Dept. of Veterans' Affairs and distributed to all men in the services, detailing the procedure for demobilization and re-establishment and the plans for their assistance in this bewildering period. It is already evident that our men appreciate this assistance in organizing their post-discharge problems.

Nor has the man in the ranks been forgotten. A great many of these young chaps with full preliminary educational requirements have indicated their wish to study dentistry. Throughout our Universities facilities are being expanded to the bursting point to accommodate these lads' wishes as well as for the many boys from the Army, Air Force and Navy who have indicated dentistry as their life's work.

Right up to the present time, dentistry has been operating on a completely empirical basis, no properly organized effort has been made to study the basic causes of dental disease nor to establish rational treatment for their prevention or cure. Through forceful presentation by the Canadian

Dental Association Committee on Research, the Research Council of Canada has now set up an Associate Dental Committee to study purely dental problems. This is probably the most significant step ever taken by the profession. True, it is a long range proposition. There will be no immediate results this year or next year but of the eventual benefits, there can be no question.

The Dominion Dental Council has very wisely and generously donated \$5000 to the Research Committee of the Canadian Dental Association to assist in the study of oral disease. The Committee has decided that this money will be ear-marked for the development of research personnel.

The reorganization and extension of the old Federal Department of Pensions and National Health into the Department of National Health and Welfare and the Department of Veterans' Affairs created many new difficulties for the profession since the relation of dental services to the private office had to be defined and established. Your Executive has found the various officials and departmental heads uniformly considerate and reasonable and a very happy relationship now exists amongst all concerned. Necessarily, in any calling so individualistic as a profession, there will be many differences of opinion and many adjustments and readjustments to make but I assure you that you will find officials cooperative and understanding, anxious to make any reasonable arrangements to fit the particular case. But please use moderation in approaching any department. These men are very human, are swamped with details, and your difficulties are only one of thousands.

Your Canadian Dental Journal has developed from a most modest venture to one of the two or three best dental publications in the world. Its articles and subject matter are quoted and copied in other Journals all over the world and it will develop and increase in prestige only as our national Association develops. It exists, solely, for

the discussion and solution of your problems, for the presentation of studies designed to make dentistry easier and more effective.

The education of the public on dental health is one of our greatest needs and our greatest problem. People are anxious to know how to care for themselves but presenting the information in an understandable and effective way has certain difficulties because of the conflicting ideas between sections and among authorities. Then too, there is little romance or sentimental appeal in dentistry from which an interesting story can be written. It is hard to impress on people that mouth health can affect their whole well being. However there is a growing knowledge on this problem which must be fostered in a continuous educational campaign.

I must at this time emphasize the happy relations now existing among the governing dental bodies of the nine provinces. In the past there have been many differences, suspicions and reservations as between sections. I believe I am within the limits of absolute truth when I say that there is now a spirit of comradeship, a recognition of mutual needs and responsibilities, that augurs well for future Canadian dental autonomy.

I have one last comment to make. This may strike one sour note in our harmony. The unification of Canadian Dentistry, the building of a representative professional body empowered to speak with authority on all that affects your office and mine, costs money. You cannot maintain the prestige of any group on a cheap, hand to mouth basis. Our group on the development and co-ordination of the dental teaching problem had to be brought from Halifax, Vancouver and mid-way points. You can figure for yourself the cost of bringing these men to Winnipeg. Do I need to point out that the development of professional unity means that each one of you must in the near future be called upon by your provincial body to pay more for the privileges

of your profession. Without drawing any invidious comparisons, trades' members pay four or five times as much to maintain effective representation. Surely the obligations to the public and to ourselves as a professional body, should make us happy and anxious to maintain our status in the public mind.

At luncheon today, we heard the Hon. Stewart Garson, Premier of Manitoba, give the detailed operational plan set up by his Government in which he stressed that prevention was the corner stone which supported the whole health structure. It was alarming when Mr. Garson finished his presentation with no reference to dentistry—in other words he left the health picture for this province in the same position as a man baling a boat without plugging the hole in the bottom.

It is a good many years now since

Sir Wm. Hunter shocked the whole profession by publishing his thoughts on dental infection. Years later Dr. Chas. Mayo stated that, in his opinion, 90% of the infections with which the human body is cursed gained access through the oral cavity.

During his presentation Mr. Garson emphasized the flexible nature of the Manitoba arrangement in that it could be integrated with the Federal proposals to form a fully coordinated effort. Without dental participation it is difficult to visualize any rational integration of the Manitoba plan since the Federal bill demands and sets forth in detail full dental participation in any provincial set up. Possibly the Manitoba Government in the future, plans for some such arrangement but, at best, under such a scheme, it can be only adding a new wing to an old building.

COMPLETE DENTURE SORE SPOTS

by I. H. ANTE, Toronto, Ontario

THE mucosa irritation might be caused by any of the following factors:

BIOLOGICAL FACTORS

Anaemia, diabetes, syphilis, nutritional deficiency, allergy or neurosis.

PHYSIOLOGICAL FACTORS

Lack of saliva, thin mucosa, soft tissue areas, sharp or bony processes, residual areas, unerupted teeth, embedded roots, growths, tumours, or degenerated processes.

ANATOMICAL FACTORS

A sharp, flat, or concaved mandible. A flat, gothic maxilla or one of small area. Where the ridges are not directly opposed or parallel to each other.

TECHNICAL FACTORS

Excessive pressure during impression procedure. Over-extension of the

denture base and lack of relief over thin mucosa areas.

Failure to establish occlusal plane and functional centric. Failure to register functional mandibular movements and balance of the occlusion.

Teeth not set over respective ridges or not sufficient over-jet, or too much overbite. Lack of cuspal interdigitation. Basal interference in retromolar and tuberosity areas.

PROMINENT FACTORS

Dentures, which are not paid for, or which are not aesthetically pleasing, are never comfortable.

To remedy the irritation, use a pellet of cotton and paint the area with a topical anaesthetic composed of glycerine 50 parts, alcohol 40 parts, phenol 5 parts, and neupercaine 5 parts.

With a spatula spread a thin film of testing paste on the area inside the denture which corresponds to the sore spot. Fig. 1 and 2. Insert the denture

Formula for testing paste:— By weight 15 parts of zinc oxide, 10 parts of amylum, 6 parts of vaseline; enough to make a 2 oz. jar of paste.

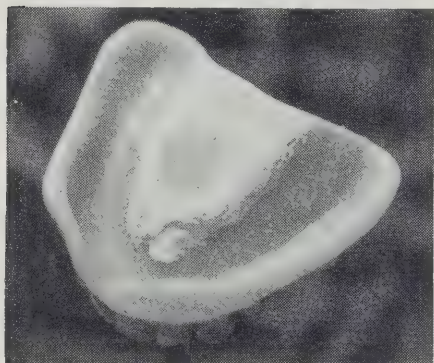


Fig. 1

and press to place with an agitated movement. Instruct the patient to close and grit the teeth, and also to exert exaggerated muscle movements. Remove the denture and, using a vulcocarbo wheel, trim the area where the base is exposed through the testing paste. Repeat procedure until no further pressure is registered. Wipe off excess paste with a tissue.

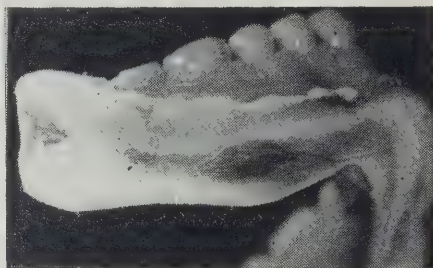


Fig. 2

If surface (not peripheral) soreness persists, transfer the dentures to an adjustable articulator with face bow, register centric and protrusive relation. Grind in to balance occlusion.

Tissues which have known little activity and are suddenly put under 20 to 40 pounds of masticating pressure, require time to become adjusted to the new demands. Be patient, courteous and understanding. Your patient has had an operation. He has lost his life long possessions — his teeth.

It is indeed those who cry loudest for a planned economy who are most completely under the sway of the ideas which have created this war and most of the evils from which we suffer.

—Friedrich A. Hayek.

"There are and always will be good, bad, and indifferent types of dental service, just as there are good, bad, and indifferent apples in an orchard."

The truth doesn't hurt unless it ought to. — B. C. Forbes.

Silence can't be misquoted, but it can be misinterpreted. — Kim Hubbard.

PENTOTHAL SODIUM ANAESTHESIA FOR MULTIPLE TOOTH EXTRACTION

by G. D. M. BODDINGTON, Major, R.C.A.M.C. Camp Borden Military Hospital and
P. T. SMYLSKI, Capt. C.D.C. No. 29 Coy., Canadian Dental Corps

AT Camp Borden Military Hospital pentothal sodium has been used recently, as a general anaesthetic for multiple tooth extraction. Thirty-one cases have been operated upon during the past three and one-half months.

The method we employ is not original but it is felt that a brief description of the technique and results will prove of interest to medical and dental officers who are concerned with the problem of dental extraction under general anaesthesia.

CHOICE OF CASES

Patients chosen for this type of treatment usually have many teeth to be extracted. They generally have numerous carious teeth and roots on which restorative work is impossible or inadvisable. In the majority of these cases there is evidence of poor oral hygiene. Another large group of patients prefer a general anaesthetic for multiple extractions because of a psychic dread of the injection of a local anaesthetic or of the conscious state during the operative procedures. This group readily subscribe to the intravenous method.

Hospitalization allows us to give a course of sulphonamide therapy prior to operation and an adequate pre-operative sedative. We believe that these procedures have materially helped to prevent complicating infections secondary to extraction and have reduced the psychic trauma of the apprehensive patient.

Patients with a deviated nasal septum, a history of a broken nose or nasal operations should not be chosen for this type of anaesthesia. On one case of old nasal fracture we were un-

able to pass the endotracheal tube through either nostril. Attempts caused nasal bleeding which was severe enough to cancel the extraction under this anaesthetic.

Patients are referred to hospital by camp dental officers. On admission they are examined by a medical officer who prescribes sulphadiazine tab VI stat then tab. 11 q 4hX6. Soda bicarbonate gr. 40 is given with each dose of sulphadiazine.

The heart and chest and conditions of the mouth are checked. Extractions are usually done on the day following admission except where oral infection demands a more conservative course for several days.

ANAESTHETIC TECHNIQUE

The morning meal is omitted on the day of operation and morphine gr. $\frac{1}{4}$ and atropine gr. 1/100 are given subcutaneously three-quarters of an hour prior to operation.

When the patient arrives at the operating room the posterior pharynx and larynx are sprayed three or four separate times with a solution of 2% butyrcaine sulphate. The patient is instructed to inhale during the spraying. The abolition of the laryngeal reflex is necessary for the subsequent introduction of an endotracheal catheter.

Induction is carried out with the patient in the supine position. Injection of pentothal is made into a vein in the left arm which is secured on an armboard. The syringe is held in place by a rubber tube which encircles the syringe and forearm, the tube being clamped by forceps. The anaesthetist is thus allowed to stand at the head of the patient and has both hands free,

except for momentary injections of pentothal.

The patient is induced by an initial 3 c.c. injection and subsequent 2 c.c. injections with a pause of half to one minute between each separate injection. Oxygen is kept close at hand whenever pentothal is used. All the precautions observed are those usually carried out with intravenous anaesthesia. The 5% solution of pentothal is employed. When about 15 c.c. of the anaesthetic have been injected (occasionally less on smaller patients) a Magill endotracheal catheter is gently passed through one nostril. A laryngoscope is inserted into the mouth and the epiglottis elevated, exposing the larynx. The endotracheal tube is then advanced and passed through the larynx. To insert the tube in the larynx slight flexion of the head may be necessary.

A mouth gag is then inserted holding the jaws apart, and two gauze packs are placed at the base of the tongue so that they effectively seal off the posterior pharynx. The patient is now ready for extraction. The anaesthetist manipulates the suction apparatus and injects pentothal in one or two c.c.'s amounts as required. With the tip of the suction the field is kept free of blood and the loose tissues of the mouth are retracted.

When extraction is completed the patient is lifted on to a stretcher, turned on his side, and the mouth packs are removed. The face is tilted down so that secretions run out of the open mouth. Suction is carried out and when satisfied that the pharynx is clear, the endotracheal tube is removed.

DENTAL OBSERVATIONS

Generally speaking removal of teeth on a patient in the supine position is not quite as easy as when the patient is in sitting position in the dental chair. But extraction of maxillary teeth presents no problem at all. Mandibular teeth are more difficult to get at but we have found that standing to the right of the patient's head seems

to be the most satisfactory position for the dental surgeon.

The teeth are removed at one operation. The advantages of this are appreciated by the patient as well as by the dental operator. The patient is only too glad to "get it over with". This also has the advantage of minimizing the loss of time which is valuable to a soldier in training. There is not the dragging out of the process of removal of teeth by bringing the patient back several times to remove a few teeth at a time as would be required under local anaesthetic. Thus, whatever prosthetic restorations are required may be commenced so much sooner.

With the oro-pharynx packed with suitable gauze sponges there is no danger of a tooth or a shaving of bone inadvertently slipping down the air passages. The endotracheal nasal catheter ensures maintenance of a free airway at all times.

Whatever débris there is from alveolectomy may be leisurely swabbed out with small exodontia sponges. An aspirator or a suction machine is essential at all times for removal of blood, mucus, and débris.^{*} The mouth gag is maintained on the side opposite that on which dental surgery is performed. Having finished one side, the mouth gag is removed to the other. These conditions being satisfactorily established the dental surgeon may take whatever time may be necessary for the extraction of teeth, removal of roots, alveolectomy and suturing.

Preoperative examination and medication minimizes possible post-operative complications. Having the patient hospitalized and under proper care at all times gives the dental operator a certain sense of freedom from anxiety over the patient's welfare following the operation. Excessive haemorrhage can be readily observed and more expertly controlled. Sufficient rest is assured. A desirable soft diet is here more readily available. Recovery of patients in all cases reported has been uneventful and most satisfactory.

SUMMARY

- (1) A technique for the employment of pentothal sodium as an anaesthetic in dental surgery has been described.
- (2) A dental officer's choice of cases and observations on the method are reported.

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What is the essential need of fundamental research in the medical sciences? The answer is brains and character — research men well chosen, well trained and well supplied with freedom and facilities to work on fundamental questions. In so far as money serves the purpose of finding, training and cherishing exceedingly competent investigators it is money invested, not money spent.

The most essential need of fundamental research in medical sciences is men — men of attainment and men of promise still to be fulfilled. They can't live without salaries, they can't work without laboratories, they can't teach without pupils who want to join the ranks. Their curiosities are not to see how much they can take from society in money or prestige. They want to understand the fundamental facts of living tissues and living organisms and human relationships. They have their disappointments, their difficulties, their tragedies. They are human. Medical research is an abstraction — the realities are men who search and search again for causes and the relation between phenomena. Until we are prepared in this country to understand the motives, the needs, the rewards, in short the lives of research men we shall go our floundering, hit-or-miss, good-naturedly uncomprehending way, wasteful of these human resources, negligent of our opportunities and happily ignorant of our failures to meet the essential need of fundamental research — the finding, training, and support of first-rate scientific brains. — Dr. Allen Gregg, Rockefeller Foundation in "Science".

If the State wishes to set up an adequate and satisfactory public dental health service, it must be a public responsibility to make this training financially possible to a sufficient number of suitable candidates, and also to ensure that the conditions of public service, when compared with those in other professions, do not discourage prospective entrants. Perhaps the most important condition of service is that every practitioner should not only be permitted, but encouraged, to carry out the very best kind of treatment he can devise for each of his patients. Otherwise the profession will languish, the public will suffer, and most fateful of all, the dental art will decline.

E. W. Fish, M.D., D.S.C., L.D.S.

We like a man who comes right out and says what he thinks when he agrees with us. — Anonymous.

The Forum

FLUORIDES AND THE CONTROL OF DENTAL CARIES

by MAURY MASSLER and ISAAC SCHOUR

Condensed from Alpha Omegan, June 1945.

THE very magnitude of the dental caries problem presents a challenge to the dental profession to find an effective means for the mass reduction of caries. Recently the observation has been made that in endemic areas where, because of a relatively large amount of fluorides in the water supply, mottled teeth are prevalent, there is a much lower incidence of dental decay than in non-endemic areas. This has led to the hypothesis that fluorides might be used to reduce the incidence of dental decay. Three methods of administration of the fluorides have been proposed: (1) Addition of fluorides to the drinking water in amounts sufficient to reduce the incidence of dental decay but insufficient to cause any harmful systemic effect such as mottled enamel (about 1 p.p.m.), part per million. (2) Prescription of tablets containing fluorides (usually bone-meal concentrates) and (3) Topical applications of fluorides on the teeth by the dentist.

Two modes of attack are thus proposed—one by systemic action of fluorides, the second by local action. The systemic method has two approaches to achieve the same end—one on a massive scale, the other by individual prescription.

If it can be proved that fluorides in minute amounts are safe and will not have any deleterious effects but will still be effective in preventing or controlling dental decay, then the addi-

tion of fluorides to the domestic water supply would provide an almost ideal solution to the problem since it is cheap, simple and would reach the entire population quickly. The prescription of fluorides by mouth is based on the same assumptions as above but offers a better control over the amounts of fluorides given and in the selection of patients, implying therefore better prevention of possible systemic effects. However, its application is necessarily limited to a much smaller and select population. The topical application of fluorides is based upon other and more recent investigative reports. Its applicability like that of the prescription of fluorides is similarly limited in the extent of its applications.

Fluorides are protoplasmic poisons and are therefore very toxic compounds. They are used extensively in orchards and in homes to kill harmful insects. The cumulative action of small doses has not been well studied and caution must be exercised in their use. Ockerse (1941, 1942) has reported crippling arthritis due to osteophytic outgrowth and periosteal deposits in cryolite workers and in patients who consumed water with a high fluoride content over long periods of time.

The action of fluorides in reducing caries activity is probably twofold: (1) its enzyme-inhibiting effect prevents the bacteria in the mouth from producing the carious lesion and (2)

it decreases the solubility of enamel in weak acid solutions:

Whatever the mode of action and whatever the theoretical considerations that form the basis of the *Fluorine-Caries Hypothesis*, the final answer is best sought through a practical trial—a therapeutic test. Such a long-range experiment to test the practicability of mass protection against dental caries through the simple expedient of adding fluorides to the drinking-water is being conducted by the New York State Department of Health in two upstate communities—Newburgh and Kingston.

Some men have advocated fluoride therapy by prescription until such time as the results are obtained from the drinking-water fluoride experiment. However, it has never been demonstrated that this form of therapy is effective in reducing the incidence of

decay. It is probable that the inhibiting action of fluorides does not occur systemically at all but only locally, while the fluorides are actually in the mouth, since injections of fluorides do not exert the protective action against caries that ingested fluorides do (Arnold and McClure, 1941). Fluorides are not excreted in the saliva except in high doses, therefore the action is again limited to purely local means during the ingestion period (McClure, 1941). Nor has the dosage, taken in concentrated tablet form, been adequately tested. The range between the effective and the toxic dose must be small, as indicated by animal experiments and by the analysis of water-borne fluoride therapy. Certainly the cumulative action of fluorides given in pill form has not been sufficiently investigated in man. It is much too early and therefore dangerous to prescribe fluoride-containing tablets.

DENTISTRY — A PERPETUAL EDUCATION

by H. D. GRUBB, D.D.S., Cleveland, Ohio.

ONE of our leaders has said that a dentist out of dental school ten years should have added to his knowledge in that time as much, if not more, than he learned in school. I believe that estimate is conservative. Theoretically, the new graduate is a finished product, ready to handle intelligently any difficulty that presents itself. Actually he is just beginning to learn. He is like those electric torches that are guaranteed up to a certain date. If before the expiration of his capacity he does not renew his batteries, he, like the torch, will go out of business.

The dental society has been aptly called the power house of better dentistry. Where such organizations function properly, as does our own society, the perfect atmosphere for co-operation and progress is established. In such an atmosphere we will find that harmony prevails, friendliness and cordiality are shown, there is an absence

of bickering and there is a tolerance for one another's opinion. Where such fairmindedness does prevail there is a free flow of ideas, men come forward with treasured thoughts, there is unparalleled opportunity for all to advance and develop through familiarity with the work of all, and this is the true reason for organization.

In all professions the need for adult education, for a constant growth after graduation is recognized, but nowhere is this continued growth more important than in dentistry which is daily facing new problems.

The average dentist, like the average physician, lawyer or other professional man, is quicker to apprehend the new than to profit by it. All too often the enthusiastic advocate of advance fails utterly to put his faith to a test. The hidebound habit of clinging to ancient and honourable tradition is the besetting sin of all of us.

True, many dentists have been known to "muddle through," as the British say, handsomely for years, on what the business man calls "velvet"—a clientele that is not aware of the best possibilities of modern dentistry. But that kind of clientele is rare in our part of the world which is alive to scientific advance and demands the best.

Moreover, even our dental problems will not stand still but are forever moving on to new and strange patterns. People in this hectic civilized world persist in having new diseases or new forms of old diseases, and dental disorders reflect the same tendency. Undoubtedly, these new disorders are part of the difficulty of adapting ourselves to the multiple torments peculiar to our day. They are in a large measure due to the high nervous tension under which we all live and work.

Modern dentistry, like modern medicine, holds to the belief that our modern ills are largely the results of wrong living rather than of physical injury, microbes or poisons thrust upon us from without.

In addition to the research evidence that many modern ills are centered in the decline of some organs and the overgrowth of others, there is an interesting collection of facts about primitive tribes living in remote lands. Many of these people are healthy beyond belief and are possessed of splendid physiques and beautiful teeth. Their fine teeth and well developed jaws are apparently adjuncts to a more normal existence than we live today surrounded by luxuries. Knowledge of this sort is valuable to the dentist, for in addition to bringing technical skill to bear on our problems the modern dentist must also bring knowledge of life and of physiology. He must be able to warn against dangerous and wasteful ways of living. He must counsel the wisdom of a quiet and contented mind in a calm and healthy body.

Preventive dentistry takes its keynote from preventive medicine, which seeks to forestall disaster rather than

find substitutes for lost function. To this end it tries to save as many teeth as possible, to find the normal for each mouth, and to treat the mouth always as a whole related to health and beauty. This relation to beauty is another angle from which our modern dentistry appears to have increased in scope. Much as we may resent the charge, restorative dentistry in particular, is inescapably tied in with the cult for beauty. The average patient of culture and refinement who consults a dentist does so as much to be improved in appearance as to be relieved of pain and inconvenience. The middle-aged patient, who discovers to his dismay that he can no longer indulge in the magic smile or enjoy the groaning board of banquets, is anxious to have his appearance improved as well as to enjoy masticatory comfort. The middle-aged patient, whether he be in his middle forties, fifties, or sixties, does not "feel old." He actively resents being pigeonholed as aged. And, why not, since he is usually a dynamic, resourceful, cheerful and amazingly productive individual?

It is the duty as well as the privilege of the well equipped dentist to preserve and enhance the youthful appearance and spirit of this most astonishingly youthful citizen.

The progress of the past few years has shown the increasing necessity for thoroughness and accuracy in all our methods. It has demonstrated the value of a wide knowledge of the properties of the materials we use; the necessity of being informed on all the principles of physics and chemistry that contribute to success in our work. Accuracy and again greater accuracy and again greater care in all phases of our work, these are a part of the *must* legislation we lay out for ourselves. If during our long and intricate operations we relax one iota we take a chance that may precipitate failure.

We must maintain the evenness and reliability of a machine while at the same time exercising the flexibility of

a sensitive intelligence. We must present the benign and placid exterior of a Buddha while maintaining within the tense rigidity more of the assorted virtues of the artist, the engineer, the scientist, the business man and the gentleman than that of a dentist. It is doubtless because of the necessity of trying to live up to this multitudinous high standard that most of us have an enviable pride in our profession.

Dentistry calls for absolute skill and faultless judgment. It calls for the surgeon's technique in the matter of delicacy and sureness of touch, for the surgeon's keen eyesight and infinite patience. It calls for the artist's pride in composition, colour harmony and proportion. It calls for the engineer's factual knowledge of the nature of materials and the stresses and strains to which these materials can be put. Finally it calls for the intuitive knowledge of the physician to determine the always important physical reserves and idiosyncrasies of the patient. How will each patient react to the particular course laid out for him. How will

dental structures stand up under the barrage laid down for them?

Am I soaring too close to the heights here? Well, lest we all get mountain sickness at the prospect of so much unattainable perfection, let us return to earth at once by saying that past achievements and present set-ups seem to promise a pretty good measure of success for the competent dentist. It begins to look as if the cultured public were heartily aware of the benefits of good dentistry. The public is persuaded that good dentistry is worth the price and that bad dentistry is a menace which should not be tolerated. The price of this good-will, however, is constant vigilance on our part that no item of good workmanship is allowed to slip. It is tireless zeal in the performance of the most minute task. It is co-operation and desire to learn of the ways and methods of our confrères and last of all it is the will to be satisfied with nothing less than perfection in the finished product.

—*Jour. of the Ohio State D. Soc*

THE PROBLEM OF PENICILLIN IN MIXED INFECTIONS

by FRANK L. MELENEY, M.D., New York, N.Y.

Summary of paper in N.Y. Jour. of D. June-July, 1945.

WE HAVE in penicillin a very powerful agent, which has the capacity to inhibit or destroy many of the pathogenic organisms which are able to produce surgical infections. However, many surgical infections are caused by a mixture or the synergistic action of two or more bacterial species. Among these infections are those which occur along the alimentary or respiratory tracts and in almost all cases of accidental or war wounds. In these bacterial mixtures there are organisms chiefly among the Gram negative aerobic rods which are not only not susceptible to penicillin but which produce

a substance which inactivates the penicillin at the site of the infection.

For these reasons it is extremely important to have a careful bacteriological analysis of every infection not obviously due to a single bacterial species. This applies particularly to subacute or chronic infections. When organisms are found which are not susceptible to penicillin or which inactivate it, attention must be given to their suppression or elimination by some specific measures directed toward them. Research studies are being directed toward this end, a report of which will be forthcoming in the near future.

ANNOUNCEMENTS***New Brunswick Dental Society***

The Annual Convention of this Association will be held in the Admiral Beatty Hotel, Saint John, September 17-18.

Eastern Ontario Dental Association

The Annual Convention of this Association will be held in Ottawa, September 23 - 25.

University of Montreal, Faculty of Dentistry

A Refresher Course in Minor Oral Surgery and Anaesthesia will be held in the new buildings of the University of Montreal, from October 8 to 12. The course will include theoretical and clinical subjects and is limited to twenty practitioners. This course is offered to the members of the Canadian Dental Corps who wish to take a Refresher Course before resuming their private practices.

The fee for the course is twenty-five dollars. Applications should be filed with: the Dean, Faculty of Dentistry, University of Montreal, 2900 Mount Royal Blvd., Montreal, Quebec.

21st Fall Clinic, The Montreal Dental Club

One of the high lights of the above meeting, which on October 24, 25, 26, will present to the Dental Profession a program of clinics, essays, topic discussions, etc., will be the presence of the six members of the Central Nebraska Denture Study Club. This group, widely known in the middle Western States through many appearances at the Chicago Mid-winter Meeting, will make their first Eastern appearance on any program and will present, in addition to a limited attendance clinic, a six-hour progressive clinic on Balanced Functional Occlusion in Denture Service.

Among other clinics to be presented will be:

Acrylics in Operative Dentistry	Dr. G. A. Coleman, Philadelphia
Bite Raising	Dr. C. C. Bastian, New York City
Impression Material	Dr. F. Messerman, Cleveland
Local Anaesthesia	Dr. J. J. Posner, New York City
Partial Dentures	Dr. J. S. Dohan, Montreal
Amalgams	Dr. F. L. Miller, Fredericton, N.E.

Other features will include essays on Fluoride in Dentistry; Business Management; Topic discussions; Questions Forum.

Preliminary Programs will be available for distribution in August.

M. L. Donigan, Director, 1414 Drummond St., Montreal 25, Canada.

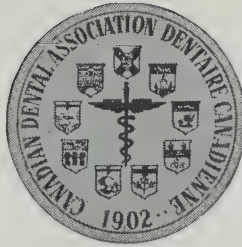
Refresher Courses for Retired Dental Officers

Through the cooperation of the C. D. A. Council on Dental Education and the Canadian Dental Corps, courses for Officers retired from the Armed Services will be announced in the Journal as submitted by the different dental schools. Members who are now serving in the Military Services, as well as those who have been retired, are requested to observe future issues of the Journal for further announcements.

Your attention is drawn to the fact that any payments, maintenance grants or fees, under the Post-Discharge Re-establishment Order, are deductible from your Re-establishment Credit. Transportation costs to and from the dental school you choose to attend are payable by yourself.

Correspondence relating to courses should be directed to the Dean of the school concerned.

REFER TO GENERAL NEWS SECTION



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Editorial

WINNIPEG—THE CONVENTION CENTRE

Commencing June 11 and continuing for ten days Winnipeg was the centre of dental committee meetings, conferences and conventions. Dentists from Prince Edward Island to British Columbia were in attendance and our professional status was considered, cross-sectioned, and microscopically examined from every conceivable angle with results which should prove far reaching in their effects upon the future practice of dentistry in Canada.

On June 11-12, a national conference by the Canadian Dental Association Council on Dental Education was held at which the deans of all of our five dental schools were present as well as many others interested in the problem of professional education in our country. Great stress was placed upon doing everything possible to prevent dental disease and that our educational set-up should be built around this goal. The biological sciences also came in for much emphasis. A good start was also made in unifying the dental curriculums in the Canadian schools. The problem of a dental student transferring from one school to another was settled. Consideration was also given to the status of applicants from other countries. Refresher courses and graduate courses were discussed. This conference should be an annual event until these pressing problems are solved.

The Canadian Dental Association Board of Delegates met morning, afternoon and evening or rather night, from June 13-16. These sessions were most strenuous and some of the officers had about reached the end of their tether when proceedings were concluded at 6 p.m. on Saturday. At this

meeting reports were received from all our standing committees and fully discussed. The committees reporting included Executive; Legislation; Research; Journal; Procurement, Assignment and Rehabilitation; Advisory; Dental Corps; Ethics; Health Insurance; Education; Dental Health and Public Relations; International Relations; Indian Affairs; Canadian Dental Hygiene Council; Canadian Dental Research Foundation; Canadian Welfare Council; Nutritional Council; Necrology; as well as reports from our President and Secretary-Treasurer. These reports will appear in a later issue of the *Journal*. The Business Meeting of the Association was held on Monday afternoon at which the new By-laws of the Association were duly presented and passed.

On the following Monday, Tuesday and Wednesday the Western Canada Dental Society held its biennial convention. This meeting was well attended as over three hundred dentists from the prairie provinces registered. Many brought their wives who were well entertained by the Winnipeg ladies under the chairmanship of Mrs. K. M. Johnson, wife of the President of the Society.

At this Convention, full consideration was given to periodontia, oral surgery, radiodontia and immediate dentures; also there was a film on nutrition. The essayists were chosen from leaders in the dental profession of the continent and as they took their task seriously, a most instructive and interesting program resulted.

Under present conditions, the weakness of the program was the absence of lecturers on the most important subjects of public health and children's dentistry but in three days there is a limit to the subjects which can be discussed.

There were many highlights to this group of meetings, gatherings which will long be remembered by those who were fortunate enough to attend. However, there was one calamity which should not be overlooked. At the Monday afternoon session several hundred dentists attended the lecture on how to extract teeth and perform other surgical operations in the mouth. Following this, but a handful remained for the Canadian Dental Association meeting where problems were presented which struck at the very foundation of our daily practice, such as who are going to extract teeth in the future. It is well to know how to extract teeth but of what value will this knowledge be to us if in the future oral surgery is allocated to the medical doctor or surgeon?

It was more than startling to hear the Premier of Manitoba at a luncheon meeting, outline his plan for health centres in this province, stressing prevention, and health services to the various communities and yet never mention a word about dentistry. In other words, if there is to be no dentist in these health centres, then oral diagnosis and oral surgery including exodontia must be turned over to the medical practitioners on the staff. The point is that these men are doing a great deal of this kind of work right now in many sections of Manitoba and the fact that they are incapable of rendering the service properly owing to inadequate training in this field, apparently

means nothing. The Canadian Dental Association has gone on record that it will do everything possible to have dentistry represented in any health centre established in Canada.

Dr. Rooney, our retiring C. D. A. President, gave a splendid address at this poorly attended meeting covering many points such as the one just considered. This address appears in this issue of the *Journal* and we trust that it will be widely read. The time has come when, as Dr. Rooney points out, it is imperative that the average dentist should take a more active interest in these national dental problems and not leave the whole matter in the hands of a few appointed officers.

If we are to avoid trouble in the future, we must all acquire the habit of taking an active interest in our national dental affairs and also give adequate financial support to our national association which is the only body which can deal with these matters.

*"The tissue of the life to be,
We weave with colours all our own;
And in the field of destiny,
We reap as we have sown."*

—M.H.G.

BOOK REVIEW

Periodontal Diseases and Soft Tissue

Lesions of the Oral Cavity by Arthur

H. Merritt, M.S., D.D.S., Sc.D., F.A.A.P.

Published by the Macmillan Company of New York and Toronto.

This is the third edition of this outstanding book on Periodontia. It has been written for the busy practitioner who has to face periodontal problems in daily practice and wishes to be told in the most concise manner possible just how to deal with them.

The book is in two parts. Part one is the same as the previous editions except that it has been brought up to date and covers such subjects as Gum Recession; Gingivitis; Vincent's Infection; Aetiology and Treatment of Periodontoclasia; Periodontal Abscess; Oral Prophylaxis; Home Care by Patient; Prevention of Periodontal Disease; Diet; Sensitive Teeth; and Splinting Teeth.

Part two is entirely new and deals with soft tissue lesions of the oral cavity. A considerable number of systemic diseases produce lesions of the mouth including the periodontal tissues and as the author says this is true

of avitaminosis, blood dyscrasias, systemic infections, sensitivity to certain drugs etc., all of which exhibit symptoms in the mouth. The following are discussed: Pigmentation; Avitaminosis; Perlèche; Herpes Simplex; Tuberculosis; Syphilis; Agranulocytosis; Leukemia; Purpura; Pernicious Anaemia; Lichen Planus; Pemphigus; Cancer; and Stomatitis from drug ingestion.

In these days it is particularly important that a dentist should be able to make a differential diagnosis of these diseases and direct the patient into proper hands. In those cases which should be treated by the dentist, the author states clearly his method of treatment and does so in a concise manner that anyone can understand.

This is a book which should be read and studied by every dentist. The author has been a recognized leader in the field of periodontia for many years, a specialist held in highest respect by all other specialists in this field, and this reviewer knows of no one better able from scholastic attainment, clinical study and years of experience to teach this subject than Dr. Merritt.—M.H.G.

DENTAL CORPS NEWS

Honours and Awards

The following is a list of members of the Canadian Dental Corps who have received honours and awards in the present Great War.—

Decorations & Medals (Efficiency & Long Service).

Lt.-Col. J. F. Blair, D.S.O.

Lt.-Col. W. G. Dawson.

Major W. C. Dowell.

The Canadian Efficiency Medal

C.41794 S/Sgt. G. C. McIntyre, C.D.C.

D.51015 Sgt. J. M. Champoux.

Mentioned in Despatches

Major (Acting Lt.-Col.) William Leslie Finlay.

Major Hamilton Ernest Simmons

Major Lewis Hiram Smith.

Capt. Gordon Willis Holden.

Capt. Maurice Ross McNeill.

Capt. Franklin Miller Roulston

L.8005 S/Sgt. Martin Floyd Whetter

H.53004 Sgt. John Douglas Connors

B.5277 Sgt. Arthur John Tait

H.37259 Cpl. Roy Granville Seller

M.42087 Pte. Gordon Orval Bogstie

B.84061 Pte. Robert Walker.

SUPPLEMENTARY LIST OF CANADIAN DENTAL CORPS OFFICERS, MAY 8, 1945

APPOINTMENTS

Rank and Name	Civilian Address
Lieut. K. A. Hetherington	Woodstock, N.B.
Lieut. J. M. Bergman	Toronto, Ont.
Lieut. G. W. Burgman	Wingham, Ont.
Lieut. J. A. Burnstein	Toronto, Ont.
Lieut. K. I. Carroll	Mitchell, Ont.
Lieut. D. E. Cousins	Wallaceburg, Ont.
Lieut. R. B. Dunlop	Toronto, Ont.
Lieut. L. E. Gilroy	Toronto, Ont.
Lieut. D. H. Hillier	Toronto, Ont.
Lieut. J. G. Kaye	Toronto, Ont.
Lieut. R. J. Murray	Toronto, Ont.
Lieut. M. Pearlman	Lucknow, Ont.
Lieut. J. C. Riffel	Toronto, Ont.
Lieut. J. D. Carfone	Windsor, Ont.
Lieut. M. H. Singer	Toronto, Ont.
Lieut. D. W. Stoneman	Toronto, Ont.
Lieut. F. G. Stulberg	Toronto, Ont.
Lieut. R. J. Sutherland	Toronto, Ont.
Lieut. F. W. Tropea	Toronto, Ont.
Lieut. J. W. Turner	Niagara Falls, Ont.
Lieut. T. M. Walker	Toronto, Ont.
Lieut. D. W. Waterhouse	Guelph, Ont.
Lieut. B. R. Zener	Toronto, Ont.
Lieut. J. F. Ledger	Oshawa, Ont.
Lieut. R. E. Wallace	St. Vital, Man.
Lieut. H. E. Buder	Pembroke, Ont.
Lieut. D. B. McAdam	Toronto, Ont.
Lieut. S. R. Webster	Mt. Dennis, Ont.
Lieut. S. C. Cohen	Winnipeg, Man.
Lieut. E. S. Blond	Winnipeg, Man.
Lieut. D. Kovitz	Selkirk, Man.
Lieut. K. A. Nicholson	Dauphin, Man.
Lieut. M. M. Roitman	Winnipeg, Man.
Lieut. W. J. Schadek	Winnipeg, Man.
Lieut. A. Schwartz	Ashern, Man.
Lieut. L. K. Brooks	Liberty, Sask.
Lieut. R. E. Dyer	Saskatoon, Sask.
Lieut. A. Kanee	Melville, Sask.
Lieut. M. Levine	Saskatoon, Sask.
Lieut. W. D. Robb	Regina, Sask.

Rank and Name

Civilian Address

Lieut. G. E. Sayers	Bresaylor, Sask.
Lieut. L. Shapira	Shellbrook, Sask.
Lieut. D. S. Ferguson	Edmonton, Alta.
Lieut. B. D. Panar	Royalities, Alta.
Lieut. J. T. Ryan	Calgary, Alta.
Lieut. A. D. Sparrow	Calgary, Alta.
Lieut. J. P. MacPherson	Victoria, B.C.
Lieut. J. G. Ryan	Nanaimo, B.C.

RETIREMENTS

Rank, Name and Date

Civilian Address

Major R. A. Wheatley, 12-1-45	Montreal, Que.
Capt. D. M. Angus, 26-4-45	Westmount, Que.
Major G. Baillargeon, 27-4-45	Montreal, Que.
Capt. H. Klein, 2-5-45	Montreal, Que.
Capt. J. G. MacKenzie, 9-4-45	Montreal, Que.
Capt. D. E. Taylor, 1-5-45	Tilsonburg, Ont.
Capt. A. O. Bradley, 30-4-45	Kingston, Ont.
Capt. J. H. Merrell, 24-2-45	Portage la Prairie, Man.
Capt. H. H. Smith, 2-5-45	Shoal Lake, Man.
Capt. J. F. Brown, 11-5-45	Winnipeg, Man.
Capt. G. B. Howard, 4-5-45	Prince Albert, Sask.
Major S. M. Somers, 20-2-45	Calgary, Alta.
Major W. R. B. Wilson, 24-4-45	Edmonton, Alta.
Major W. J. Netherton, 14-3-45	Penticton, B.C.
Capt. A. G. Lough, 9-4-45	Victoria, B.C.
Major R. L. Scharff, 19-5-45	Vancouver, B.C.
Major W. L. Fluck, 16-5-45	Halifax, N.S.
Major L. F. McRae, 16-3-45	Lachine, Que.
Lt.-Col. H. R. Cleveland, 23-5-45	Montreal, Que.
Capt. R. Begin, 31-5-45	Sherbrooke, Que.
Capt. E. Marshall, 24-5-45	Ottawa, Ont.
Capt. S. W. Kemp, 12-5-45	Ottawa, Ont.
Capt. K. A. MacPherson, 25-5-45	Islington, Ont.
Capt. T. J. Hackie, 15-5-45	Winnipeg, Man.
Capt. S. W. Sarbit, 28-5-45	West Selkirk, Man.
Major E. E. Groff, 31-5-45	Winnipeg, Man.
Capt. F. B. Cooper, 31-5-45	Moose Jaw, Sask.
Capt. (A/Maj.) M. A. McIntyre, 11-5-45	Edmonton, Alta.

NEWS FROM THE PROVINCES

QUEBEC:

Dental Nurses Association

The following is a summary of the activities of the Montreal Dental Nurses' Association during the past six months. At Christmas time the nurses gave a party for the children of Griffon Town. One hundred and fifty children attended, played games, were served refreshments and on leaving each child was given candy and an orange. This was quite an undertaking but well worth the effort and a huge success.

At a dinner meeting in January Mr. Ed. McCracken was guest speaker, his subject "Psychology and the Dental Nurse" proved of great interest. At this meeting the nurses received their pins which had been decided on earlier in the year. They have been a great success and made the nurses feel they 'belong'.

In February Dr. R. B. Bell presented a most interesting and constructive lecture. His subject was "Facts of Dental Anatomy which would Interest the Dental Nurse." Refreshments were served at the close of the meeting.

In March H. F. Ritchie & Co. Ltd. entertained the nurses with eight assorted films and provided a very relaxing evening at the close of which refreshments were served.

The last two meetings were chiefly concerned with ideas and comforts for the veterans at the Convalescent Home on Queen Mary Road. At one of them Mr. Copeman of the Provincial Laboratories Lectured on "The Denture of Tomorrow."

The results of the efforts of the nurses for the veterans have been very gratifying to those who have donated their time, but it must be added that extra help for this excellent work would be appreciated.

BRITISH COLUMBIA:

British Columbia Dental Association

The twenty-ninth annual convention of the British Columbia Dental Association was held at Qualicum Beach Hotel, Vancouver Island, on June 2. This meeting was entirely different to any previously held in that this modern resort Hotel so picturesquely lo-

cated was taken over for the Convention. This resulted in a spirit of comradeship which was furthered by a goodly number of guests from the State of Washington, the Canadian Dental Corps, and other Provinces in Canada. The Convention was opened in a novel and thrilling manner with a tree topping exhibition arranged by the Qualicum Beach Chamber of Commerce. A high rigger climbed a stately Douglas Fir about 200 feet high and lopped off 50 feet.

The Convention Committee Chairmen were: —Executive and President, Arthur Poyntz; Program, P. J. Rumball; Transportation, B. E. Nickells; Entertainment, W. B. Milburn; Golf, W. A. McDonald; Publicity, T. H. Johns; Secretary, J. F. Mercer; Reception, W. N. Gunning; Arrangements, J. E. Gee.

The various lectures and table clinics presented were practical and helpful and were followed with great interest by all present. Dr. George Ellsperman of Bellingham, Wash. presented an inspiring paper on "Good Procedures in Dentistry." Lectures were given Friday by Dr. Frank E. Wood, Seattle, on "Reasons and Results in Immediate Denture Service." Dr. R. J. O'Neil, Victoria, on "Interosseous Anaesthesia." Dr. Roy Bier, Winnipeg, on "Oral Surgery." Capt. A. H. Wilkinson, Naval Dental Clinic, on "The Semi-Erupted Third Molar Relationship to Vincent's." Dr. L. L. Foote of Seattle, on "Nitrous Oxide Anaesthesia." Major C. Usher, Army Dental Clinic, on "Application of Periodontal Pack After Scaling Teeth."

Saturday morning was devoted to table clinics presented by those who lectured the previous day, as well as Gold Foil by the Vancouver Ferrier Study Club, Doctors R. H. Colbourne, G. C. Darts and Wm. Miller. Diagnosis Study Club, Vancouver; Radiodontia, Vancouver Diagnosis Study Club, Drs. D. J. Sutherland, H. M. Cline, M. M. Chechik, I. Snider. Orthodontics by V. D. Westcott, Vancouver. W. Clyde Davis Silicate Cement Technique by Dr. J. B. Kiefer, Seattle. Fracture Appliances by Dr. D. H. Sharpless, Everett, Wash. Porcelain Technique by Dr. W. H. Hagen, Seattle. Pedodont-

tia by Dr. Wm. L. Barnum, Portland. Stress Breakers by Dr. H. T. Koon, Seattle; and a display of early Dental Instruments and Matrix Band Application by Dr. A. J. Garesche, Victoria.

The Annual meeting of the British Columbia Dental Association was held Friday afternoon at which various helpful reports of committees were received and the following officers were elected for the ensuing year: President, Dr. G. C. Darts, Vancouver; President-elect, Dr. V. D. Westcott, Vancouver; Secretary, Dr. E. G. Bryant, Vancouver; and Doctors L. S. Robinson, New Westminster, G. A. C. Walley, Vancouver, and T. H. Johns, Victoria, were elected to the Board of Censors.

A banquet was held Friday evening presided over by Dr. Arthur Poyntz. Greetings were expressed by Dr. W. A. Jeffry, President of Washington State Association; Dr. Scott Hamilton, Dean of the University of Alberta Dental School, Edmonton; and Mr. Welch, Commissioner of the Board of Trade, Qualicum Beach. Mr. Neve representing the Pacific Biological Station gave an interesting address on the "Habits of Fish" and the work done by his Department.

Saturday afternoon was devoted to Golf on the scenic and sporty course adjoining the Hotel.

Winner of the B.C. Association Silver Trophy for the Low Gross: Dr. G. H. Seale, Vancouver (West).

Winner of the Low Net Score: Capt. A. H. Wilkinson, C.D.C. Victoria.

Winner of the High Gross Score: Dr. W. Miller, Vancouver.

Intercity Golf Tournament—Foursomes representing Victoria, Vancouver, Seattle, Canadian Dental Corps.

Winner of the Low Gross, Seattle: Dr. J. Hoelcher, Dr. H. W. Lindblad, Dr. Bert Hagen, Dr. Geo Chatalis.

Visitors Prize—Low Gross Score: Dr. Chatalis, Seattle, Wash.

Victoria Dental Society: Low Gross Score, Dr. W. A. MacDonald; Low Net Score, Dr. J. Mercer; Low 24 Handicap, Dr. Eric Fowles.

Vancouver Dental Society: Low Gross Score, Dr. G. H. Seale. Low Net Score, Dr.

R. J. Stewart; Low 24 Handicap, Dr. E. Martin.

Victoria Dental Society

The annual business meeting of this Society was held during May. The election of officers for 1944-45 resulted as follows:—

President, Dr. W. A. McDonald

President-elect, Dr. E. S. Fowles

Sec.-Treasurer, Dr. J. D. Johnson

Executive, Drs. B. E. Nickells, J. D. Calvert, Hugh Clarke.

ALBERTA:

Golf at Edmonton

The Edmonton Dental Society held its first monthly Golf Meet on June 7, at the Mayfair Golf and Country Club.

After golf, dinner was served in the Club House, to the twenty members present. This was followed by the presentation of prizes, post-mortems and the usual after-dinner stories.

Dr. J. D. Hawkins, the President was in the chair, while Dr. D. E. Florence was in charge of all arrangements.

ONTARIO:

Interest is Sustained in the Post-Graduate Courses in Dentistry

During the months of February, March and April, 1945, the Faculty of Dentistry, University of Toronto, in response to the requests of dental practitioners, instituted a series of one-week post-graduate courses in the subjects of Dental Surgery and Anaesthesia, Dentistry for Children, and Periodontology.

Complying with the expressed wish of these applicants, and in order that the maximum benefit might be derived from the instruction given, membership in these classes was limited to fifteen. As a result, many of the applications received had, of necessity, to be deferred pending the organization of supplementary classes.

This has now been done, and the Faculty announces that new one-week classes will be conducted; as follows:

Periodontology, commencing October 22, 1945.

Dentistry for Children, commencing October 29, 1945.

Dental Surgery and Anaesthesia, commencing November 5, 1945.

The sustained interest in these courses by dental practitioners is evidence of a laudable desire to put into practice the most recent developments in dental science and thus enlarge the scope of dental health service. Nor is this interest confined entirely to dental practitioners; members of faculties other than dentistry, have asked for the privilege of attending some of these classes. Applications for membership in the courses have come from dentists resident in Indiana, Colorado, Ohio, New York and most of the Canadian provinces.

Though the fall classes in Periodontology and Dental Surgery are already filled, those who contemplate taking any of these short courses should make application now so that their names may be included in future lists. There are still a few vacancies in the class in Dentistry for Children commencing October 29, 1945.

2T3 Scholarship News

There were 61 members present at the twenty-second reunion dinner held on May 29 at the Royal York Hotel, including representatives from Alberta, New Brunswick, Ohio, Michigan, New York, and other points.

The treasurer reported \$2563 on hand for the Scholarship Fund. The class voted in favour of making an endeavour to raise the fund to approximately \$3500 in order to provide a Scholarship of \$100. yearly.

The following officers were elected for the ensuing year: President, S. Lee Honey; Vice-Pres., Harold Skilling; Sec'y.-Treas., J. C. Fullerton; Committee; Harry Hobbs, Don Gullett, W. C. McLean, A. J. Hillier, Martha Law.

The following district representatives were appointed to assist in contacting members regarding the Scholarship Fund:

J. A. Boyd Stratford
Earl Jackson Hamilton

Elmore Baker N.Y. State
G. A. C. Walley British Columbia
Earl Dodds Alberta
Harry Bradley Windsor
A. J. Hillier Winnipeg
D. L. McKerracher Ottawa
P. J. Ross Detroit
B. R. Ross Maritimes
Brig. F. M. Lott Canadian Dental Corps
Percy Hill North Bay
J. F. A. Daly Ohio
Archie Gillies London

The usual goodfellowship prevailed and the meeting adjourned with the hope that the Fund would be completed by March 1 of next year, so that arrangements could be made to present it to the University at the 1946 Convention when one of our own members, Dr. Frank Martin, will be President of the Ontario Dental Association.

J. C. Fullerton, Sec'y.

Dental Bursary Fund Established

A member of the 1941 class in Dentistry, University of Toronto, during his undergraduate years, was under the necessity of securing financial assistance from the University in order to pay fees and other expenses pertaining to the dental course.

Having now become established in practice, he has repaid the amount of the grant received, though under no necessity whatsoever for so doing, and has asked that this sum be used as a bursary for some other dental student who may require financial assistance.

To this end a Dental Bursary Fund has been established in the University with the expectation that this initial contribution will be the nucleus of a substantial fund later to be contributed to by dental practitioners who themselves have benefited by grants or loans received during their undergraduate days or who desire to give tangible evidence of an affectionate regard for their Alma Mater.

Fluorine Experiment in Brantford

At the last meeting of the Brantford Dental Society it was decided to seek government aid in order to make a thorough examina-

tion of the teeth and mucosa of about 1,000 school children. Bite-wing radiograms would be taken for approximately one hundred of this control group.

Before sodium fluoride was added to the water supply, Dr. Bradley Linscott examined and charted the teeth of all the children in the grade schools and found a very high percentage of carious teeth. It is the intention to make this examination periodically during the next ten years to ascertain the effect, if any, of fluorinizing the water supply.

The bacillus acidophilus count has been made of a comparatively small group and it is

believed that there is some probability that this count may be lowered.

The men who are giving their time to this project, feel that it is a step in the right direction.

A. Gregor Smith

Toronto East Golf Meeting

Toronto East Dental Golf Tournament
Cedar Brae Golf and Country Club, Wednesday, September 12 at 1 o'clock. All dentists and friends welcome.

Leon Hipwell,
Chairman Golf Committee.

EMPIRE NEWS

NEW ZEALAND:

Dental Practice in New Zealand

Condensed from Editorial in N.Z. Dental Jour. Jan., 1945

Much has happened during the past year to engage the attention of members, but perhaps nothing has inspired so much controversy as the matter connected with the dental treatment of adolescents by the present State service. Originally this was to be done by the appointment of a body of salaried dental surgeons—a proposal to which the Association had given its approval. However, in view of the difficulty existing at present in building up salaried personnel, the Director, Division of Dental Hygiene, later on intimated that in the meantime it was the intention of the Government to invite members of the profession to undertake voluntarily, at an agreed rate of remuneration, the dental care of suitable groups of adolescents; and further, that it was also its intention to utilize the services of specially selected dental nurses for the treatment of the lower age categories. But as this represented an important departure from what had been already agreed to, especially in so far as the nurses were concerned, the Central Executive decided that the matter was of sufficient importance to call a meeting of the Special Committee, representative of all the Branches, that had previously been appointed to consider the whole question of the treatment of adolescents.

This Committee duly met and after considerable discussion decided to approve the Government's proposals in connection with the employment of practitioners under certain provisos, chief among which was the right of the patient to choose his or her own dentist, and that the work done be limited to certain types of conservative treatment at fees suggested by the Committee. Similarly it was also decided to approve the utilization of the nurses' Service, provided that such services did not interfere with their duties in connection with the treatment of the pre-school and primary school children.

It is true of course, that some criticism has arisen among members with regard to the wisdom of allowing the nurses to undertake what has been described as advanced operative work, but in the minds of all familiar with the high standard of the work they have proved themselves capable of doing in their present sphere, no misgivings should exist. Indeed, against any contrary view, it might be argued with some effect that such work as they are already engaged upon is of equal if not greater importance, than that for which, as a temporary measure, it is now proposed to utilize their services. If this is not granted, then it must surely seem that the growth and development of the human jaws, which is so largely dependent on the early treatment, care, and preservation of the deciduous teeth, is of minor importance instead of being, as it actu-

ally is, the most fundamental and important problem in the whole range of dentistry, and one that demands the very highest degree of skill. This, it seems to us, is a point that deserves to be more frequently emphasized than at present.

The fact should not be overlooked that many of them to-day, no matter how willing they might be to give assistance, are already finding it extremely difficult to fulfil engagements to their own patients. Consequently, in the event of them deciding to attempt the treatment of more cases, it is just possible that they will find themselves in the position of not being able to give the high standard of work they would like to any surplus.

To the most casual observer also it must be conceded that the standard of dental work in all countries is never uniform, but is subject to the widest variations which has led many in turn to proclaim that the best results are only achieved in dentistry when it is done under supervision.

But whatever importance may be attached to these points, they may be regarded for the moment as subsidiary to the main issue, which is really the commencement of the reorientation of dental practice in the Dominion with the ultimate objective of establishing a more comprehensive and better distributed dental service than exists at present.

Thus, in seeking the solution of the many problems facing dentistry today, there is need for a wide vision, unblurred by any trace of that mistrust and selfishness which are so often associated with the rigidity of small and unchanging minds.

GREAT BRITAIN:

Dental Ill-Health

"The state of the dental health of our population is bad, and its effect on their general health is bad." Such is the verdict of an Inter-department Committee on Dentistry which has just presented an interim Report to the Ministry of Health. The evidence shows that a disturbingly large proportion of the population at all ages suffers from dental disease mainly caused by neglect. It is abundantly proved that the public does not understand the importance of dental hygiene—only

7 per cent of insured persons in an average year claim dental benefits to which they are entitled. But education which ought to be provided through the Schools and every other suitable agency, will not be enough till the facilities for treatment exist. The fact that much ill-health springs from defective teeth provides an unanswerable argument for setting up a comprehensive dental health service as a part of the National Health Service, and that is the most important recommendation in the Report. It would have general dental practitioners and public services for consultation and special treatment. Until this can be provided National Health Service will not be complete. Unhappily, the shortage of dentists is even more acute than the shortage of doctors. It would take 30 years to get enough dentists, even if the student entry to the profession were increased 20 per cent. Strong inducement will have to be offered to secure more recruits.—*Spectator*, London, per N. Z. Dent. Jour.

Ancillary Services

by E. WILFRED FISH, M.D., D.D.Sc., D.Sc.
Excerpt from Chairman's Address at the Opening of the 48th Session of the Dental Board of the United Kingdom. (From Br. D. Jour.).

The Board were invited by the Inter-departmental Committee on Dentistry to express an opinion on the extent to which services ancillary to those of registered dental practitioners might be developed with due regard to the public interest.

The Board disclaimed any experience on which they could base a submission to the Committee on the question whether the provision of ancillary services was necessary in the public interest or not; and the Committee were good enough to make it clear that they would not press the Board for an opinion on this aspect of the matter; they did, however, put to the Board the following question:—"On the hypothesis that there was such a need" (that is for ancillary services) "what maximum limits ought to be placed on such arrangements either in regard to the scope of the work to be done, or in regard to the control and supervision of the worker?"

This question was presumably put to the Board as the body whom the Minister of Health is under a statutory obligation to con-

sult as to the conditions which he might think proper to approve in connection with the performance in any public dental service of minor dental work by any person under the personal supervision of a registered dentist; and it was with the Minister's approval that reference was made to the Board by the Committee.

The Board recommended that no amendment of the existing law should be entertained by which it would cease to be an offence for any person other than a registered dentist or medical practitioner, or a bona fide student working under supervision, to perform any operation in the mouth involving deliberate surgical interference with living tissue.

If it were found necessary in the public interest that, subject to this governing condi-

tion, some delegation of function from registered dentists to other persons should be made, the Board recommended that the ancillary worker should be required to undergo a course of training in an approved institution, should be subjected to the disciplinary jurisdiction of a competent authority, and should only carry out work under the immediate personal supervision of a registered dentist. They recommended that an additional restriction be placed on the performance of one group of any such activities by any person other than dentists, in that they should only be pursued in public dental institutions, and should be prohibited in private practices, for only under these conditions did the Board consider that the profession could accept responsibility for the dental health of the community.

GENERAL NEWS

Movie Teaches Soldiers to Fight With Their Teeth

Every soldier in the U.S.A. Army will be required to see a recently completed motion picture on dental health. The basic manuscript was prepared by the Dental Division of the Surgeon General's Office and the 24-minute film was produced by the Army Signal Corps through Hollywood studio facilities. The roles are played by Army personnel. Distribution at present is limited to the Army but civilian showings may be possible later.—Dental Survey.

"Oral Surgery"; Dr. Ambrose J. O'Neill of Edmonton on "Prosthetics"; Dr. C. J. Fred Jackson of Winnipeg on "Periodontia"; Dr. Douglas Brown of Winnipeg on "Intra-osseous Anaesthesia"; also the Winnipeg Dental Society Study Group on "Acrylic Jacket Crowns".

The following officers were elected for the ensuing year: President, Dr. V. M. Lloyd, Edmonton, Alberta; 1st Vice President, Dr. L. J. D. Fasken, Regina, Saskatchewan; 2nd Vice President, Dr. A. R. Hurst, Brandon, Manitoba; Secretary, Dr. Stanley Corben, Calgary, Alberta; Treasurer, Dr. John Clay, Calgary, Alberta.

The next convention will be held in Calgary or Banff.

Western Canada Dental Society

This Society held its biennial convention in Winnipeg, June 18-20, with over 300 dentists registered from the prairie provinces. The President, Dr. Kenneth M. Johnson of Winnipeg presided. The guest speakers were Dr. John Kemper of Ann Arbor, Michigan, on "Oral Surgery"; Dr. Edward L. Ball of Cincinnati, on "Periodontia"; Dr. J. Coupland from Ottawa on "Radiodontia"; and Dr. Frank Martin of Toronto on "Immediate Dentures". The following group clinics were also presented: Dr. W. Scott Hamilton of Edmonton on

M. H. Garvin Scholarship Fund

In recognition of the service rendered the dental profession of Canada by M. H. Garvin, of Winnipeg, the Dental Society of Western Canada at its meeting held in Winnipeg, June 18-20, presented him with a thousand dollar scholarship fund for the Dental School of the University of Alberta. Dr. John Clay of Calgary made the presentation.

The scholarship is to be known as the M. H.

Garvin Scholarship Fund to the University of Alberta and the fund is to be established as follows: 1. The funds shall be turned over to the bursar of the University of Alberta and held in trust.

2. Payments from the fund shall be used to encourage scholarship and ability at the University or aid in providing graduate or post-graduate instruction for members of the most recent graduating class from this school

3. That in addition to scholastic attainment, consideration be given to aptitude, citizenship, professional conduct and financial need.

4. That great care be exercised so that only exceptional and deserving students may benefit and that the award may not necessarily be made each year.

5. That a committee from the Western Canada Dental Society consisting of the President and the two Vice Presidents, co-operate with the University Committee on awards and that they be given power to determine the amount of each award.

6. That the Committee consisting of the President and the two Vice-Presidents of the Western Canada Dental Society be empowered to revise the terms of the award at any time.

7. That the Western Canada Dental Society shall make an effort to augment the fund from time to time that it may become a factor in improving the standard of Dentistry in Western Canada.

The Wisconsin Junior Academy of Science

Approximately two hundred delegates from the clubs of the high schools in the Milwaukee area of the Wisconsin Junior Academy of Science met on May 20 at Marquette University to present scientific papers and demonstrations based on research work in high school. Two annual honorary memberships in the American Association for the Advancement of Science and several annual memberships in the Wisconsin Academy of Sciences, Arts, and Letters were awarded.

Cincinnati Boosts Dentistry as Career For Young Men

To attract as many fine young men as possible to the profession of dentistry was the goal of the Cincinnati Dental Society as

it held its first annual Dentist-Boy banquet. Dentistry and its opportunities were described to the nearly 150 young guests by A.D.A. and state and local dental society officials and by deans of four dental colleges.—Dental Survey.

FACULTY OF DENTISTRY UNIVERSITY OF TORONTO

Short Post-Graduate Courses

Short courses of *two weeks duration* have been arranged for dentists who have been serving in the Armed Services and who desire further study in certain phases of dental practice. Instruction which will be both didactic and practical will be offered in the following subjects:

Preventive Dentistry

The Course will consist of three parts: (I) dental hygiene and prophylaxis and the prevention, the early diagnosis and treatment of caries; (II) nutrition from the dental aspect; (III) the general health as it affects conditions in the mouth, especially in children.

Dentistry for Children

The Course is designed to aid the general practitioner and comprises didactic instruction, clinical demonstration, clinical practice and child psychology.

Dental examinations, diagnosis, operative procedures are stressed as well as normal growth, development and prevention in its broadest sense.

Operative Dentistry

This Course will embrace all dental operations, using various types of restorations and stressing particularly diagnosis and prevention of dental disease.

Ceramics

This subject will include the theory of dental porcelains and their applications, as well as laboratory and clinical demonstrations, with an opportunity for the application of these teachings to clinical practice.

The construction of porcelain crowns, inlays, and staining of artificial teeth in the management of aesthetics of the anterior teeth

both for crowns and for dentures, will be given special attention.

Root Surgery and Therapy

This Course will embrace a comprehensive study of pulp pathology and accepted therapeutic measures for pulp protection, pulpotomy, and pulpectomy.

Operative techniques, radiographic interpretation of various types of periapical pathosis, applied dental bacteriology and histopathology will be included.

Periodontology

A detailed course covering the didactic and clinical aspects of this subject will be given.

Diagnosis, case-management, planning and treatment will be stressed. Packing, scaling, oxygen therapy and the use of the newer drugs including penicillin will be discussed.

The first week of the course will include lectures, demonstrations and seminars. The second week will be devoted to clinical practice.

Dental Surgery and Anaesthesia

A course in minor oral surgery and anaesthesia will be given commencing Monday, December the third. The fundamentals of surgery will be stressed, and the basic fields of anatomy, pathology, physiology, pharmacology, and clinical bacteriology will be briefly reviewed. Didactic instruction and demonstrations will be given in anaesthesia, both local and general, as well as in the entire field of exodontia and minor oral surgery as it concerns the general practitioner of Dentistry. Radiodontic procedures will be reviewed with emphasis on extra oral films, occlusal plane films, condyle films and examination for fractures. One session will be devoted to a clinic on oral tumours. The remaining hours will be assigned to clinical oral surgery, when the class will undertake actual clinical cases under the supervision of the Staff. This phase of the work will of necessity be limited by the number of patients available at the time.

Complete Denture Prosthesis

The Course of instruction will cover all the principal phases in clinical practice and

laboratory procedures in complete denture construction and during the course each member of the class will build one set of complete dentures.

The Course will be intensive and practical including lectures on the basic sciences related to complete denture prosthesis in Anatomy, Oral Pathology, Physiology, Radiology and the Physics of Dental Materials.

Lecture demonstrations and clinics on all steps in the building of dentures will be illustrated by lantern slides, motion pictures and models.

Removable Partial Denture Prosthesis

The Course will include classification, construction, adjustment and maintenance of partial restoration in semi-edentulous mouths. Individual instruction in clinic and laboratory will be given in small groups.

Crown and Bridge Prosthesis

This Course will be primarily a laboratory course wherein the principles of design and construction of various types of fixed restorations will be given. Practical work in the clinic will of necessity be limited.

Orthodontics

A class in orthodontics will be contingent on sufficient numbers of applications being received. The Course will be of four weeks duration commencing January 28th, 1946.

Instruction will be practical as well as academic. It will include Anatomy, Oral Physiology, Genetics and other basic subjects.

Applicants will be enrolled in the order of receiving their applications and instruction will be given in small groups.

Provided sufficient applications are received, courses may commence on the following dates:

November 19th, 1945

Preventive Dentistry
Periodontology
Ceramics
Complete Denture Prosthesis

December 3rd, 1945

Operative Dentistry
Dental Surgery and Anaesthesia
Removable Partial Denture Prosthesis

January 14th, 1946

Dentistry for Children
Root Surgery and Therapy
Crown and Bridge Prosthesis

January 28th, 1946

Orthodontics (4 weeks' course)

If requested, these courses may be repeated at future dates.

Fees

The fee for each course will be \$40.00 for each registrant per week.

Applications should be received at least one month prior to the opening of the course and addressed to:

Arnold D. Mason,
Dean, Faculty of Dentistry,
230 College Street, TORONTO 2B.

Dental Nurses and Assistants

The Western Canada Dental Nurses' and Assistants' Association held its fourth Biennial Meeting on June 18, 19, and 20 at the Fort Garry Hotel in Winnipeg. The meeting was well attended and proved to be educational and entertaining to all delegates and visitors.

Miss Marjorie MacLennan of Victoria, the President of the WCDNAA presided at the meeting and gave an address of welcome on Monday morning following the official opening by Mrs. R. F. McWilliams, wife of the Lieutenant Governor of Manitoba, and the invocation by Wing Commander R. M. Frayne.

Dr. J. P. Coupland of Ottawa, Ontario, was the first guest speaker and his topic was "The Dental Assistant's Role in Radiodontic Service." Dr. Coupland stressed the fact that after a radiogram was exposed, the developing, fixing and mounting were usually entirely in the dental assistant's hands, and that careful processing and handling on her part were the only guarantees of a perfectly finished radiogram.

The merits of the various techniques were discussed and he urged the use of a fast process enabling the operator to view the film

in two and one-half minutes. Dr. Coupland also demonstrated the use of a simple reduction agent and recommended its use in securing a uniform set of radiograms. He also demonstrated the making of bite-wing films with regular film packets and adhesive paper and the making of a film for edentulous mouths by attaching a cotton roll to the film.

Miss MacLennan presented her clinic on "Helpful Hints" following which the delegates were the guests of Denco Western at a Luncheon. Mr. McKenna of the S. S. W. Company was the guest speaker.

In the afternoon Dr. E. Roy Bier of Winnipeg addressed the meeting on "Oral Surgery." Two films were presented showing the use of the electrical impactor in the routine as well as the more difficult extraction cases. Careful observation of the film and Dr. Bier's helpful comments gave the assistants some excellent instruction on the use of the aspirator and gauze packs in keeping the field clear for the operator.

The delegates were the guests of the Western Canada Dental Society in the evening to hear an illustrated lecture given by Dr. Edward Ball of Cincinnati on "diagnosis and Treatment of Periodontal Lesions."

On Tuesday morning Dr. Frank Martin of Toronto, Ontario, gave an illustrated address on "Chairside Assistance for Immediate Dentures." He pointed out the three A's in dental assisting: Alertness, Anticipation, Asepsis, and urged that they be always uppermost in the mind of the assistant. The film which demonstrated the various procedures necessary in preparing and inserting immediate dentures had been made in Dr. Martin's own office, and while it was being shown Dr. Martin explained exactly what was being done and why it was desirable.

"A Dental Assistant Builds a Successful Practice" was the aptly chosen title of a paper delivered by Dr. Gordon Elsey of Winnipeg. He emphasized to what a great extent the harmony in a dental office is due to the tact and consideration of the dental assistant. She must possess unlimited loyalty to her dentist and his patients, and must have a genuine interest in dentistry and in people if she hopes to succeed in her chosen work.

The luncheon on Tuesday was given by the Ash Temple Co. and Mr. E. E. Rogers of Vancouver was the guest speaker.

Dr. Edward L. Ball gave an illustrated lecture on "Periodontia" and urged the assistants to learn the correct method of brushing the teeth and to use every opportunity for patient education. He gave a practical demonstration using a Winnipeg assistant for his patient.

The remainder of the afternoon was taken up viewing a film on "Modern Nutrition" at which the assistants were the guests of the Dental Society.

On Wednesday morning Miss Margaret Nix of the Department of Health and Public Welfare addressed the meeting on the Manitoba Health Plan. Miss Nix said that the Manitoba plan was the most workable one she had ever studied and held high hopes for its success. In addition to the other health benefits offered there will be regular visits of travelling dental units to the various rural districts. It is hoped that very soon a resident dentist will be available for each of the small rural health centres.

Also on Wednesday the most important business sessions of the meeting were held. Dr. M. H. Garvin kindly consented to preside at the meeting for the formation of a Canadian Dental Nurses' and Assistants' Association. Mrs. Marion Edwards of Toronto was elected the first President of the new Association. The other officers elected were Miss Ruby Donald of Victoria, 1st Vice-President; Miss Hazel Wylie of Winnipeg, 2nd Vice-President; and Mrs. Ilean Bruce of Toronto, Secretary-Treasurer. This Executive was given power to draw up a constitution and to perform any other duties which may arise before another meeting is held.

During the luncheon given by Mrs. A. Shaw the election of officers for the W.C.D.-N.A.A. was held and resulted in the following Executive being elected: Honorary President, Miss Mary MacArthur of Winnipeg; President, Miss Sally Cuthbert of Calgary; Vice-President, Miss Marjorie Frayne of Regina; Secretary, Miss Eleanor Dix of Calgary; and Treasurer, Miss Juel Grose of Winnipeg.

The Biennial Meeting was brought to a close by an interesting visit to Shaws Dental Laboratory.

Jane McClure, Winnipeg.

A.D.A. House of Delegates Not Meeting

The Office of Defense Transportation of the U.S.A. has refused to grant a permit for holding the September (Chicago) House of Delegates meeting. The Ad Interim Committee will meet at an early date to authorize necessary activities that the Association may carry on.

Chicago Dental Society

It is proposed by the Finance Committee of this Society to raise the dues from \$5.00 to \$15.00 a year. If approved, total annual dues will be \$27.00, \$6.00 going to the Illinois State Dental Society and \$6.00 to the American Dental Association.

Dental Health Program in U.S.A.

Condensed from Jour. of A.D.A. June 15, 1945.

A bill translating two points of the American Dental Association's proposal for a national dental health program into legislation was introduced in the U.S.A. Senate June 4.

The bill authorizes the appropriation of funds to states and their political subdivisions for the establishment of programs of dental health education and dental care.

This bill, if enacted, will provide \$1,730,000 for the erection and equipment of a national institute of dental research and for research grants to various individuals and agencies.

The bill also provides for grants to the states and their political subdivisions for establishing and maintaining adequate measures for the prevention, treatment and control of (dental) diseases, including dental care programs for children, the training of personnel for state and local dental health work, and the development and maintenance of effective means for the education of the public concerning dental diseases."

A beneficiary may select any practitioner

appearing on a panel to treat him, but must obtain the consent of the practitioner.

Payments to general medical and dental practitioners may be made (1) on the basis of fees for services rendered, according to a fee schedule, (2) on a *per caput* basis, the amount being decided by the number of individuals entitled to benefits who appear on a practitioner's list, (3) on a salary basis, full or part time, and (4) on a combination or modification of these methods.

The term "general dental benefit," in the words of the bill, "means services furnished by a legally qualified dentist or by a group of such dentists, including all necessary dental services such as can be furnished by a dentist engaged in the general practice of dentistry and including preventive, diagnostic and therapeutic treatment, care and advice, and periodic examination."

By this bill health insurance is made available to 135,000,000 persons.

Every legally qualified physician and every qualified hospital has the right to participate. The same is true for groups of physicians; and the same is true for dentists. Physicians, dentists and hospitals are specifically given the right to select the method by which they are to be remunerated for the services they furnish.

Remuneration in a Comprehensive Service

Condensed from Editorial in Br. D. Jour. June 15, 1945.

The claim of the profession to play the major part in the organization of a comprehensive dental service for the nation is securely based upon considerations of public welfare, and whilst no member of the profession would be prepared to argue that the interests of individual practitioners should be the predominant consideration to be kept in view, it is clear that the co-operation of a large majority of the profession is essential to the success of the scheme.

The difficulties which have to be overcome relate almost wholly to the proposed general practitioner service and fall into two main groups—the range of the service to be includ-

ed and the method of remunerating the dentists taking part in it.

There are two aspects of comprehensiveness, the persons to be included and the range of treatment to be given under the scheme. It would be comparatively easy to arrange a scale of fees to cover what may, for convenience, be described as standard treatment, and to require special estimates to be submitted for items of treatment not included in the scale, but experience of dental benefit under the National Health Insurance Acts hardly encourages the belief that such a system could be described as affording comprehensive treatment in the sense in which the profession would understand that term. The essential basis of a satisfactory scale is that it should enable individual dentists to provide "standard" treatment free of cost to the individual patient and in so doing to earn a reasonable livelihood. But to apply an average scale of this kind to all the complicated procedures of advanced technique and to dentists of widely differing ranges of skill would retard the progress of the dental art and might well have disastrous results on the recruitment of the profession.

The alternative to a rigid scale would be the adoption of the principle of grants in aid based on a minimum scale expressed either in "points" or money. This would provide a fully flexible system under which most of the difficulties inherent in a rigid scale would be overcome. Large sections of the community would receive complete treatment without being called upon to make any payment and others would be free to make payments for the more time-consuming operations and advanced prosthetic technique without forfeiting their rights to receive grants in aid. Such a system would undoubtedly commend itself to the profession and it would increase the range of freedom of choice of dentist.

The Cost of the War

An estimate that the cost of the war to date is in excess of \$1,000,000,000,000 comes from Washington. This works out at \$500 for every man, woman and child in the world. And this is only the partial cost since it does not include damage to property which in itself represents a colossal sum.

IN MEMORIAM

John M. Dixon of Calgary, Alberta, died on June 24. He was graduated from the University of Toronto in 1913 and commenced practice in Medicine Hat.

He moved to Calgary in 1922 and opened offices in the Southam Building where he practised continuously until ill health forced him to retire in 1941.

He was a member of the Board of the Alberta Dental Association from 1929 until 1941 and served as President of the Board in 1933 and in 1937. He was Alberta representative on the Dominion Dental Council from 1933 until 1941 serving as President from 1938 until 1940. He was President of the Western Canada Dental Society from 1939 to 1941.

He was an active member of the Calgary Golf and Country Club, the Glencoe Club and the Fish and Game Association. He was also active in curling circles.

Dr. Dixon is survived by his widow and one daughter, one sister and one brother.

•

Gordon Dundas of Cobourg, Ontario, aged 47, died July 7, at Toronto General Hospital. He was graduated from the Faculty of Dentistry, University of Toronto, 1923, and practised for ten years in Cleveland, Ohio, prior to moving to Cobourg, where he practised for the past twelve years.

He was prominent in community affairs in Cobourg and was a member of the Board of Education, Master of Cobourg Lodge, A.F. and A.M., and a member of the Anglican church.

Enlisting in the signal corps in the last war, while a student in dentistry, he served overseas for three and a half years.

Dr. Dundas is survived by his widow, his parents and a brother.

•

J. Howard Whittaker of Vancouver, British Columbia, aged 46, was fatally injured in a motorcycle accident near Merritt on June 22. He died in hospital three hours after the accident. He was graduated from North Pacific Dental College, Portland, Oregon in 1927 and was a member of Sigma Fraternity. He was a member of the Kiwanis Club, the John Howard Society, a former charter member of the "Y" Men's Club, and librarian for the B.C. Dental Association.

Dr. Whittaker is survived by his widow, one son and one daughter and a sister.

•

H. L. Large of Cranbrook, British Columbia, aged 72, died June 26. He was graduated from the Dental College in Detroit, and practised in his home town of Listowel, Ontario, for a short time before coming west. He practised at Carstairs, Alberta for several years and then in Medicine Hat until 1925 when he moved to Cranbrook.

He was a long-time executive member of the Cranbrook Board of Trade and was active in community affairs.

Dr. Large is survived by two sons.

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La Carie Dentaire

Ses causes—Sa prévention

par PHILIPPE HAMEL, B.S., D.D.S., Québec

(suite)

Sans trop insister sur les vitamines, repassons brièvement les principales qui peuvent influencer directement ou indirectement sur la carie ou la pyorrhée.

VITAMINE A

La vitamine A liposoluble, antixérophtalmique, facteur de croissance et de développement, se trouve particulièrement dans la crème, le beurre, le jaune d'oeuf, l'huile de foie de morue et de flétan, et s'emmagine dans le foie de l'homme.

Cette vitamine peut aussi se former dans le foie même, au moyen d'une enzyme (carotinase) qui agit sur un pigment jaune appelé carotène ($C^{20}H^{29}OH$). La carotène se trouve dans la banane, les oranges au just jaune foncé, les épinards, le chou, la patate sucrée, la laitue, la carotte, la tomate, le blé d'inde jaune, etc. Elle est absente dans la patate blanche, le maïs blanc et la betterave à sucre.

L'organisme humain fait en quelque sorte la synthèse de la vitamine A, pourvu qu'on lui fournisse les éléments nécessaires: carotène et carotinase.

Madame Mellanby a démontré que la carence de cette vitamine pendant la formation de la dent donnait à cette dernière une structure défectueuse, parfois même difforme. S. B. Wolbach déclare que l'avitaminose A, durant la période où se forment les dents, est pour l'homme peut-être la plus sérieuse de toutes les déficiences en vitamines.

On a prétendu que cette vitamine permettait à l'organisme de résister à l'infection microbienne. On peut admettre que l'absence de vitamine A affaiblit la résistance

Jour. A.D.C., août, 1945

d'un individu, mais celui qui ne souffre pas d'avitaminose, ne saurait accroître sa résistance simplement en pratiquant l'hypervitaminose.

Dose: Rien de défini sur la quantité de vitamine A que requiert l'organisme. On a suggéré 1400 à 2000 unités par jour pour guérir la nyctalopie (vision défectueuse le soir). Des autorités recommandent 5000 à 6000 unités pour les enfants et les femmes enceintes. Deux cuillerées à thé d'huile officielle de foie de morue contiennent 6250 unités de vitamine A et 625 unités de vitamine D.

Sa carence:

- 1°. donne une mauvaise vision, le soir: nyctalopie — c'est le premier signe d'avitaminose A;
- 2°. diminue la résistance à l'infection;
- 3°. retarde la croissance;
- 4°. cause la xerophthalmie.

Cette vitamine jouerait un rôle dans la pathogénie de l'anémie, du purpura et de certaines affections de la peau.

L'enfant naissant sans provision de vitamine A dans son foie, se constitue une réserve en buvant le colostrum, beaucoup plus riche en vitamine A que le lait maternel sécrété plus tard; la nature voit ainsi à donner à l'enfant un surplus de vitamine A, dès son entrée dans la vie. Si l'enfant n'est pas nourri au sein, il ne reçoit pas ce colostrum riche en vitamine A et ne peut se bâtir une réserve. Il faut alors pour combler cette déficience, ajouter à l'alimentation une faible dose d'huile de foie de morue, dès que l'enfant est en état de tolérer cette médication. Il reçoit ainsi vitamines A et D, toutes deux importantes pour la croissance et la calcification.

VITAMINE B

Des neuf vitamines B connues, il en est trois dont l'importance est établie pour la nutrition humaine:

- 1°. La vitamine B¹ ou l'hydrochlorure de thiamine;
- 2°. La vitamine B² ou la riboflavine;
- 3°. l'acide nicotinique ou niacine.

Vitamine B¹ (Thiamine) vitamine antineuritique. Sa carence nuit à la croissance, enlève l'appétit, provoque la polynévrite, (Beriberi) la pellagre et la constipation. Elle joue un rôle évident sur le métabolisme des hydrates de carbone. Sa carence dans l'alimentation cause des troubles qui ressemblent à ceux du diabète. L'avitaminose B ne serait pas étrangère aux ulcères du tube digestif.

Un des premiers symptômes qui laissent soupçonner une avitaminose B, c'est l'anorexie et la constipation tenace.

Le chlorure de thiamine est recommandé dans les névralgies majeures du trijumeau (tic douloureux) et dans les vomissements incoercibles des femmes enceintes.

Dose: Pour les enfants: 50 à 70 unités internationales par jour. Pour les adultes: 280 unités par jour. (Accepted Dental Remedies, p. 201.)

Le pyrophosphate de thiamine est une enzyme, appelée carboxylase, essentielle au métabolisme des hydrocarbonés.

Vitamine B² (Riboflavine) (G), vitamine particulièrement nécessaire à la nutrition de l'oeil.

Sa carence nuit à la croissance, provoque l'anorexie, la perlèche ou cheilose, rougeur de la conjonctive, sécheresse de l'oeil, troubles oculaires, cataracte. — On la trouve dans les aliments qui contiennent la thiamine.

Dose: 600 unités Sherman-Borquin pour adultes.

Acide nicotinique (Niacine) antipellagreu et curatif de la langue noire chez les chiens. On a cru que sa déficience prédisposait à l'infection de Vincent.

On trouve cette vitamine dans la levure séchée, le foie, la chair animale, le saumon en conserve, les pois, les tomates, le germe du blé.

La dose prophylactique n'est pas déterminée. (Accepted Dental Remedies, 10th Edition, p. 202.)

VITAMINE C

Vitamine C, acid ascorbique.

Sa carence donne le scorbut, favorise la gingivite et la pyorrhée. Boyle, Bessey et Wolbach (J.A.D.A. 24; 1768, 1937) prétendent que certains cas d'atrophie alvéolaire sont attribuables à une avitaminose C qui cause une certaine forme légère de scorbut chronique.

L'acide ascorbique ou cevitamique augmente les trombocytes et facilite l'hémostase dans la thrombopénie.

Sa source dans les aliments est trop connue pour qu'il y ait lieu d'en parler ici.

Dose: 200 à 600 unités internationales par jour.

QUATUOR A. B. C. D.

Les vitamines A, B, C et D forment un quatuor important pour le développement et la conservation des dents. N'appuyons pas davantage sur cette question des vitamines trop souvent traitée dans nos revues dentaires et médicales, pour retenir votre attention plus longtemps à son sujet.

HORMONES

Après la découverte des vitamines, nous nous croyions sur le chemin de la dentisterie préventive simple et efficace. Nous avons dû encore là encaisser des déceptions. Puis apparurent les études approfondies sur l'action des glandes à sécrétion interne. Les savants isolèrent les hormones, trouvèrent leurs formules chimiques et les reproduisirent même par synthèse. Tout comme pour la vitamine D, des misérables ont aussi monopolisé la fabrication des hormones appelées à guérir tant de maux chez les humains.

J'omettrai de donner des détails sur cette nouvelle honte pour certains industriels en produits pharmaceutiques. Le livre de Wendell Berge précédemment cité, pourra instruire le lecteur avide de renseignements sur ce sujet; ou encore le volume suivant publié par "The Government Printing Office, Washington, D.C.": Scientific and Technical Mobilization, Part 10. Monopoly & Cartel Practices. The Hormone Cartel Prix .20¢.

HYPERTHYROIDISME

L'hyperthyroïdisme devient un facteur important dans la décalcification. Tous les dentistes connaissent les ravages que cause aux dents l'hyperactivité de la glande thyroïde: le goitre exophthalmique. N'est-ce pas là un exemple probant que la bacille acidophile peut causer la carie dentaire mais que sa culture, sa prédominance dans certaines cavités buccales se trouve reliée à une cause constitutionnelle, au métabolisme en général qui, lui, est régi par l'activité, ou à l'inactivité de certaines glandes endocrines.

HYPERPARATHYROIDISME

La glande parathyroïde régularise la concentration du calcium dans le sang. Son hyperactivité: l'hyperparathyroïdisme augmente l'élimination de calcium par voie urinaire et non par le tube digestif. L'hyperthyroïdisme provoque la décalcification du système osseux, par augmentation de la concentration du calcium dans le sang, calcium puisé à même le tissu osseux.

PARA-THORMONE ET INSULINE

L'hormone de la parathyroïde semble jouer, pour le calcium, le rôle que remplit l'insuline pancréatique pour le sucre, avec cette différence toutefois qu'avec une plus forte dose de la para-thormone, on augmente le calcium dans le sang, tandis qu'avec une dose accrue d'insuline, on diminue le sucre dans le sang. Ils sont deux régulateurs avec des effets contraires sur les éléments qu'ils contrôlent, quand on en augmente la

dose. Si le calcium augmente dans le sang après une injection de para-thormone, le phosphore diminue.

PARATHYROÏDECTOMIE — VITAMINE D

Rapoport & Shelling ont produit de l'hypercalcémie chez des animaux parathyroïdectomisés, en leur administrant de fortes doses de viosterol, et cela bien qu'il y eût carence complète de calcium dans le régime alimentaire. C'est donc que le système osseux, dans ces circonstances, se déminéralise pour accroître la quantité de calcium dans le sang.

Ainsi, la vitamine D augmente le calcium dans le sang, indépendamment de l'hormone de la parathyroïde.

L'action de la vitamine D et celle de la para-thormone ne sont pas cependant identiques. L'hormone de la parathyroïde augmente le calcium dans le sang et diminue le phosphore, alors que l'administration de vitamine D et l'irradiation aux rayons ultraviolets augmente et le calcium et le phosphore dans le sang.

L'ablation de la glande para-thyroïde donne: de l'hypocalcémie et de l'hyperphosphatémie. (Cantarow, p. 90.)

AUTRES FACTEURS NUISIBLES A LA CALCIFICATION

Il est d'autres facteurs nuisibles à la calcification normale. Un excès de sodium, de potassium ou de magnésium, par exemple, diminue le calcium dans le sang et nuit à la calcification. Dès qu'on administre un sel de potassium, de sodium ou de magnésium, l'élimination du calcium augmente dans l'urine. *Howe et Towend* ont trouvé 100% plus de magnésium dans les dents cariées que dans les dents saines.

Les sels de potassium augmentent l'élimination des sels de sodium, et le rapport entre ces deux sels dans l'organisme devient un facteur important dans l'assimilation des sels de chaux.

Si on augmente la proportion de phosphore, on constate aussi une augmentation de l'élimination du calcium. La concentration du phosphore dans le sang fonctionne en sens inverse avec celle du calcium. Plus il y a de phosphore, moins il y a de calcium.

Si on injecte des *glycerophosphates de sodium* à un patient, on constate que l'élimination du calcium est à peu près proportionnelle à la quantité de phosphore administrée.

Steenbock, Hart & Sato croient qu'un excès d'alcali peut aussi provoquer une décalcification. Cependant, *Farquharson, Salter, Tebbets & Aub* rapportent que l'administration d'une quantité excessive d'alcali (bicarbonate de soude ou citrate de soude) n'a aucun effet important sur l'équilibre phospho-calcique. Les autorités se contredisent manifestement sur ce point.

ELIMINATION DU CALCIUM PAR LE REIN

Cinq facteurs peuvent accroître l'excrétion du calcium et provoquer une décalcification:

- 1°. L'hyperthyroïdisme; ou l'administration d'un extrait de thyroïde;
- 2°. L'hyperparathyroïdisme ou l'administration d'un extrait de parathyroïde;
- 3°. Carence de vitamine D dans l'alimentation, quand le calcium et le phosphore ne se trouvent pas en proportion normale dans l'alimentation;
- 4°. Excès de certains éléments inorganiques, particulièrement le phosphore, dans l'alimentation;
- 5°. L'acidose.

La diminution de l'excrétion du calcium par le rein nous permet de suspecter un métabolisme inférieur à la normale, de l'hypochlorhydrie ou une insuffisance de calcium dans l'alimentation.

Voilà autant de points dont il faut tenir compte quand on veut essayer de remédier à la carie et tenter d'éliminer ses causes. S'occuper du seul bacille acidophile, c'est vouloir trop simplifier un problème des plus complexes.

QUANTITE DE CALCIUM DANS LE SANG

La quantité normale de Ca dans le sang varie de 9 à 11 mg. par 100 CC. Sur 10 mg. de Ca dans le sang, 6 mg. peuvent passer à travers la membrane colloïdale des cellules et, sur ces 6 mg., 2 mg. seulement sont sous la forme ionisée; les 4 autres mg. sont combinés avec la protéine.

Quand le calcium baisse à 7 mg. par CC., le patient est atteint de tétanie.

La fièvre de lait chez les bovins est attribuable à de l'hypocalcémie. L'animal sur le point de mourir est ranimé en quelques minutes par une injection intraveineuse de 300 CC. de gluconate de calcium en solution à 10%.

L'éclampsie chez la femme est aussi attribuable à de l'hypocalcémie, puisqu'une injection intraveineuse de 10 CC. de gluconate de calcium à 10% provoque un prompt soulagement. Cette dose peut être répétée au besoin, à quatre ou six heures d'intervalle.

LES ALIMENTS ACIDIFIANTS ET ALCALINISANTS

Les aliments dont les produits de combustion sont alcalins, tels les fruits, les légumes, enrayent la carie, c'est connu, et diminuent l'élimination des sels la chair. Au contraire, les aliments dont le produit de combustion est acide, comme la chair animale, les hydrates de carbone, (sucre, céréales, pain blanc), favorisent la carie et augmentent l'élimination des sels de chaux. Les premiers favorisent l'alcalose de l'organisme; et les seconds, l'acidose.

Cependant, l'alcalose mal compensée peut nuire à la calcification pour la raison suivante: Il arrive que dans l'alcalose, le CO_2 diminue dans le sang, sans quoi il ne pourrait y avoir alcalose. Or, les sels de calcium sont tenus en solution dans le sang par la présence de bioxyde de carbone CO_2 . Lorsque ce dernier diminue, on trouve moins de calcium dans la circulation sanguine. Il y a aussi moins de calcium ionisé, puisque le calcium s'ionise seulement dans un milieu acide. Par conséquent, dans l'alcalose on trouve moins de calcium utilisable. (Broderick, p. 164.)

METABOLISME DES CORPS GRAS

Les corps gras normalement s'oxydent dans l'organisme et se transforment en $\text{H}_2\text{O} + \text{CO}_2$. Si l'oxydation est incomplète, il se forme des acides aceto-acétiques, B oxybutyrique et de l'acétone. Pour la combustion complète des corps gras, il faut que deux molécules d'hydrates de carbone se métabolisent en même temps que six molécules de gras. Les hydrates de carbone jouent donc un rôle dans l'assimilation des graisses. Il faut admettre qu'en diététique, il nous reste beaucoup à approfondir. Plusieurs principes, appuyés par l'expérience et les faits, sont reconnus de tous, mais combien restent discutés.

OVAIRES

Après l'ablation des ovaires, il y a une diminution de l'excrétion du calcium, ce qui laisse croire que ces glandes ont un certain rapport avec le métabolisme calcique.

GLANDE PITUITAIRE ANTERIEURE

Dans l'acromégalie, maladie due à une hyperactivité de la glande pituitaire antérieure, l'accroissement des extrémités osseuses et de la mandibule est attribuable à une rétention et à une fixation des sels de chaux, par suite de l'influence des sécrétions pituitaires sur le métabolisme calcique.

LE CALCIUM A BESOIN D'UN MILIEU ACIDE POUR ETRE ASSIMILE

Ici, nous sommes en présence d'un problème singulier. L'acidose favorise la carie et l'élimination des sels de chaux. Cependant, pour obtenir une assimilation des sels de chaux, il faut que ces derniers soient bien ionisés dans un milieu acide comme l'estomac, et que le bol alimentaire demeure un certain temps acide même dans l'intestin grêle. Ainsi, un patient souffrant d'hypochlorhydrie ou d'achlorhydrie, n'assimilera pas les sels de chaux, en dépit d'une alimentation bien balancée, accompagnée d'une abondante ration de vitamine D.

Tout paradoxal que cela puisse paraître de prime abord, il faut, pour conserver ses dents, de l'acide chlorhydrique dans l'estomac, et si ce dernier fait défaut, on doit

en ajouter quelques gouttes diluées dans de l'eau après les repas. Et cependant, il importe, pour conserver ses dents, d'avoir une nourriture dont le produit de combustion soit neutre ou alcalin. La contradiction n'est qu'apparente, puisque, comme vous le savez, la digestion stomacale est acide, et la digestion intestinale, alcaline.

L'administration d'acide chlorhydrique doit avoir lieu dans un estomac plein.

L'administration d'un alcalin, tel le bicarbonate de soude, doit se faire lorsque l'estomac est vide et non au moment de la digestion, excepté dans les cas d'hyperchlorhydrie.

METABOLISME DU PLOMB

L'empoisonnement par le plomb (saturnisme) permet de démontrer, de façon irréfutable, que l'acidose décalcifie les os. On a constaté que le métabolisme du plomb est le même que celui du calcium et que le plomb se dépose dans les os. Il s'emmagasine, comme les sels de calcium, dans la charpente osseuse où il devient inoffensif. Dès qu'une cause vient deminéraliser les os — acidose, hyperthyroïdisme ou hyperparathyroïdisme — le plomb qui dormait calme et paisible dans la structure osseuse, est libéré et provoque de nouveaux symptômes d'empoisonnement. Le plomb réapparaît dans l'urine. Il est difficile de trouver exemple plus probant de l'effet de l'acidose sur la charpente osseuse.

Pour faire disparaître ces symptômes d'empoisonnement par le plomb, on n'a qu'à donner au malade des vitamines D et des injections de gluconate de calcium. Le plomb se fixe de nouveau avec le Ca, et les troubles du saturnisme disparaissent. Si l'on veut reproduire les phénomènes d'intoxication, on n'a qu'à provoquer de l'acidose en administrant du chlorure d'ammonium (90 grs. et plus par jour). Le plomb libéré réapparaît dans la circulation sanguine avec tous ses effets nocifs.

Fait extraordinaire, *Howe* a démontré que dans les cas d'empoisonnement par le plomb, les sels de ce métal pouvaient être décelés dans les dents par l'analyse spectroscopique. Il a aussi prouvé que des animaux nourris de sels de fer, avaient du fer dans leurs dents, vingt-quatre heures après l'administration de la dernière dose. Si on examinait ces dents, *trois jours* plus tard, toute trace de fer était disparue. Voici qui contredit l'affirmation récente qu'une dent ne change pas sa structure, sauf pour former de la dentine secondaire en vue d'enrayer la carie ou de corriger une irritation. Il se produit donc sans cesse des échanges minuscules mais toutefois faciles à déceler, entre le plasma sanguin et les dents.

La Salive

Selon Michaels et Howe (15), la composition de la salive reflète le métabolisme en un temps donné et, pour cette raison, la salive serait un indice d'une plus grande signification que la composition du sang ou de l'urine. C'est une affirmation d'importance.

Davis, après avoir pratiqué des expériences sur 2,500 échantillons de salive (16), conclut que ces épreuves laissent croire que l'acidité de la salive n'est pas le facteur le plus important parmi les causes de la carie.

Gies (17) déclare qu'il est biologiquement absurde de tirer un diagnostic de la nature et de la réaction d'aucun specimen de salive obtenu de qui que ce soit et sous quelque condition que ce soit.

Starr et Bunzell, après nombre d'expériences, concluent que la réaction de la salive dépend de l'état de l'équilibre acido-basique du sang, au moment où elle est sécrétée.

C'est ainsi qu'avance la science à coup de contradictions: Il est manifeste que

(15) Opus cit. Broderick, p. 43.

(16) Opus cit. Mead, p. 170.

(17) Opus cit. Broderick, p. 209.

des détails susceptibles d'apporter de profondes modifications aux conclusions à tirer, échappent souvent à l'attention des expérimentateurs.

LUTTE INCESSANTE DE L'ORGANISME CONTRE L'ACIDOSE ET L'ALCALOSE

L'organisme humain lutte incessamment contre l'acidose ou l'alcalose, et ces réactions perpétuelles peuvent influencer sur la salive, et par la salive sur le bacille acidophile, et de là sur la dent.

D'après Starr (18), le pH de la salive varie de 5.4 à 8.00.

D'après Bunzell: de 5.3 à 7.2.

D'après Broderick: de 4.9 à 8.00.

La salive prend son pH de l'acide carbonique et non du sang lui-même, puisque le pH du sang ne saurait varier normalement qu'entre 7.3 à 7.5.

On sait que toute activité musculaire donne, comme résidu, de l'acide lactique et du bioxyde de carbone CO_2 (l'anhydride carbonique) qui, avec une molécule d'eau, forment l'acide carbonique H^2CO_3 ou CO avec deux hydroxyles, $\text{OH} = \text{CO} \begin{cases} \text{OH} \\ \text{OH} \end{cases}$.

Le sang ne peut jamais devenir distinctement acide, sauf à la mort, mais sa tendance peut être marquée du côté acide ou du côté alcalin. Il faut donc que l'organisme contienne ce que l'on appelle des solutions tampons (buffer solutions) pour empêcher que le sang ne deviennent acide ou trop alcalin. Son pH varie entre 7.3 à 7.5. A 7.0 (du côté acide), le patient tombe dans le coma. A 7.6 (du côté alcalin), il est frappé de tétanie.

L'organisme doit, de toute importance, régulariser continuellement les humeurs pour empêcher que les acides dues à la combustion interne des aliments, ceux formés par l'activité musculaire de l'organisme, enfin ceux introduits directement dans le tube digestif, ne changent le pH sanguin plus que d'une minime fraction.

SOLUTION TAMPON PRINCIPALE (Na-H CO_3)

La solution tampon principale est celle du bicarbonate de soude NaH CO_3 . Le bioxyde de carbone CO_2 qui est le résultat de l'activité musculaire est pris par le sang passant à travers les capillaires. Une partie du CO_2 forme avec NaOH (hydroxyde de sodium), le bicarbonate de soude NaH CO_3 qui reste en solution dans le sang. Le bicarbonate et le CO_2 se rendent au poumon. Le CO_2 s'élimine directement, et le bicarbonate se décompose ainsi: $\text{CO}_2 + \text{H}_2\text{O} + \text{Na}$. La partie qui constituait l'acide $\text{CO}_2 + \text{H}_2\text{O}$ est éliminée pendant que la base Na est retenue dans l'organisme.

QUANTITE DE NaH CO_3 POUR REDUIRE L'ACIDOSE

Sellards (19) évalue la sévérité de l'acidose, c'est-à-dire la carence de bicarbonate de soude dans le sang, en mesurant la quantité de bicarbonate que le patient doit ingérer avant que son urine devienne alcaline. Pour un enfant normal, 20 à 40 grs. peuvent suffire à rendre l'urine alcaline. Lorsque l'acidose est assez prononcée pour se manifester par une hyperpnée, il faut 1540 grs. pour alcaliniser l'urine, et dans les cas plus graves, jusqu'à 3080 grs.

Il conclut qu'une carence 1,200 à 1,500 grs. de NaH CO_3 peut exister sans qu'aucun symptôme clinique ne l'indique.

Le bicarbonate, vous pouvez le constater, n'est plus le médicament que l'on administre craintivement à petite dose. Il n'est ni toxique ni purgatif. Le seul effet nocif qu'il produit quand on obtient l'alcalose, c'est une légère diminution dans les sens de l'équilibre à la marche.

COMMENT DECELER L'ACIDOSE ET L'ALCALOSE PAR L'URINE (20)

On peut aussi mesurer le degré d'acidose par l'analyse de l'urine. On sait que les acides s'éliminent de deux manières par le rein:

(18) Opus cit. Broderick, p. 208.

(19) Opus cit. Broderick, p. 260.

(20) Opus cit. Broderick, p. 309.

1°. l'acide libre;

2°. l'acide combiné avec l'ammoniac.

La proportion entre ces deux formes d'élimination nous dira si le patient souffre d'acidose, d'alcalose ou s'il est normal.

On prend 2.5 c.c. d'urine dans une éprouvette, on y ajoute 5 ou 6 gouttes d'une solution à 0.1% de phenol rouge. L'acide libre de l'urine donne une couleur jaune au phenol rouge. Puis cette urine est titrée avec une solution centinormale de Na OH (Hydroxyde de sodium) 0.4 gr. par litre, jusqu'à ce que la couleur originale rose soit obtenue. On enregistre la quantité de solution requise pour obtenir cette réaction. Puis à l'urine ainsi neutralisée, on ajoute de la formaline pour libérer tout l'acide combiné avec l'ammoniac. La solution redevient jaune comme au début, sous l'influence du nouvel acide libéré.

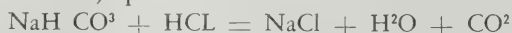
Un second titrage se fait et on note de nouveau la quantité de solution neutralisante utilisée. Le premier titrage indique l'acide libre; le second, l'acide combiné. La proportion normale du premier titrage au second devrait être comme 1 est à 2. Si elle s'approche de 1 à 3 ou plus, la tendance de l'individu est du côté acide. Si elle est de 1 à 1, la tendance est à l'alcalose.

L'acidose se manifeste aussi par un accroissement de l'ammoniac dans l'urine (pourcentage normal: 4%).

CO² REGULATEUR DE LA RESPIRATION ET EN MEME TEMPS DE L'ACIDOSE ET DE L'ALCALOSE

1°. — ACIDOSE

Dans l'acidose, on trouve plus de CO² dans le sang. Le CO² agit sur le centre respiratoire, augmente le rythme de la respiration, afin que, dans un même temps, il y ait plus d'acide carbonique éliminé. Lorsque des acides forts sont absorbés dans le sang, ils agissent sur le bicarbonate de soude. Du CO² s'élimine et il se forme un sel neutre (chlorure de sodium) que le rein élimine.



Ces acides forts épuisent la réserve alcaline de l'organisme, parce que la base qui a formé le sel est éliminée par le rein. Chaque molécule d'acide détruit ainsi une molécule de bicarbonate et si l'on répétait souvent cette opération, sans pouvoir refaire la réserve alcaline, l'animal pourrait mourir par insuffisance d'alcali nécessaire pour le transport du CO² aux poumons.

Le poumon sert donc de soupape pour l'élimination des produits de combustion acides. Le centre respiratoire demeure l'indicateur le plus délicat que l'on connaisse. Une augmentation de 0.2 pour cent ou 1.5 mm. dans la pression du CO² dans le sang artériel, cause immédiatement une augmentation de 100 pour cent dans la ventilation alvéolaire. Cette augmentation correspond à une différence de 0.012 dans le pH, différence que l'électromètre et la méthode colorimétrique ne nous permettent pas d'enregistrer.

Université de Montréal

Faculté de Chirurgie Dentaire

Cours de perfectionnement

A l'exemple des Universités-soeurs des Etats-Unis, l'Université de Montréal inaugure à l'automne un cours de perfectionnement, pour ces anciens diplômés.

Depuis quelques années, les dentistes canadiens-français ont leurs congrès et leurs

journées d'études, organisés à la façon américaine ou anglo-canadienne; ces réunions scientifiques groupent autour des maîtres de l'heure de la profession dentaire, les dentistes de langue française désireux de suivre les développements de leur art et avides d'améliorer leurs services dans leur cabinet respectif. Ces groupements d'hommes de même profession permettent la discussion et la comparaison des diagnostics et des différentes méthodes de traitements.

Ces confrères, au cours des congrès, rencontrent toujours avec plaisir leurs anciens professeurs de l'Université et sont curieux de connaître les progrès de la formation donnée à notre faculté. Tous les gradués de l'Université de Montréal aiment toujours comparer l'enseignement de leur temps avec celui de nos jours. Et, n'avons-nous pas entendu dire souvent, ces anciens, aux élèves actuels: "Vous êtes chanceux d'apprendre ceci ou cela. . . . Dans notre temps. . . .". Ces dentistes d'une autre génération sont en droit de désirer la marche en avant de leur profession et les dirigeants de notre faculté s'efforcent d'améliorer sans cesse le programme d'études de demain. Les élèves d'hier seraient émerveillés de l'organisation du cours d'études et de l'installation matérielle de notre faculté aux nouveaux immeubles de la montagne.

Il est impossible, dans un article court, d'étaler tous les changements progressifs apportés au cours de chirurgie dentaire depuis quelques années. C'est un sujet sur lequel il faudra revenir. Contentons-nous de souligner la présentation d'un cours post-universitaire en chirurgie et en anesthésie, à l'automne de 1945.

Le service de chirurgie est le premier à offrir aux dentistes, un cours d'une semaine; les autres services (prothèse, couronne et pont, dentisterie opératoire, périodontie, diagnostic) suivront bientôt et feront bénéficier les membres de la profession, d'un enseignement de base, tel que donné aux élèves de la faculté. Ces cours, que les Américains appellent "Refresher Course", ne présentent rien de sensationnel, d'extraordinaire, de stupéfiant. Ils ne donnent que l'occasion aux dentistes, de revivre leur époque estudiantine, de revoir le côté théorique des problèmes de la clientèle et de réapprendre des techniques éprouvées par l'usage et les sciences basales. Ces cours "post-gradués" permettent à ceux qui les suivent de se spécialiser pour un certain temps, dans un domaine dont ils ne maîtrisent pas tous les aspects. Ils leur fournissent le climat scientifique, l'ambiance, l'atmosphère propres à l'approfondissement d'une matière particulière. Ils mettent à leur disposition tout un arsenal d'instruments, une bibliothèque, un personnel entraîné, un choix de patients, enfin tous les éléments nécessaires à l'étude d'une science de leur choix.

L'organisation de ces cours post-universitaires vient combler une lacune de notre groupement canadien-français. Notre université se compare aux grandes écoles dentaires américaines. La reconnaissance officielle de la New York Board of Education, classe notre faculté au niveau de Columbia, Ann Harbor, etc. Nous avons nos congrès, qui égalent en valeur les réunions similaires de nos confrères d'autres langues. Nous aurons maintenant nos cours "post-gradués", par lesquels nos dentistes pourront améliorer leur science personnelle dans l'étude, la tranquillité et le cadre sérieux de l'Université.

A sa réunion de juin dernier, à Winnipeg, l'Association Dentaire Canadienne demandait aux cinq Facultés dentaires canadiennes, d'organiser des cours post-universitaires, pour les membres du corps dentaire canadien, qui laissent l'armée et reprennent la pratique privée. L'Université de Montréal projette l'organisation de cours spéciaux, dans tous les domaines de notre art, et le premier de ces cours sera donné en chirurgie et anesthésie. La Faculté invite donc les anciens officiers, réformés, de l'armée, à s'inscrire à ce cours post-universitaire du mois d'octobre.

GERARD DEMONTIGNY, D.A., D.D.S., M.S.D.

Voir la liste de cours à la page suivante

UNIVERSITE DE MONTREAL FACULTE DE CHIRURGIE DENTAIRE
COURS DE PERFECTIONNEMENT

DATE	HEURE	LOCAL	COURS	SUJET	CLINICIENS
lundi, le 8 octobre	9.00 à 10.00	salle de cours	théorique	"Principes généraux de chirurgie et anesthésie"	Dr E. Charron
lundi, le 8 octobre	10.15 à 12.00	amphithéâtres A & B	clinique	"Injections mandibulaires, infiltrations, extraction de dents"	Dr J. Demers Dr G. deMontigny
lundi, le 8 octobre	2.00 à 3.00	salle de cours	théorique	"Solutions anesthésiques"	Dr G. deMontigny
lundi, le 8 octobre	3.15 à 4.30	amphithéâtres A & B	clinique	"Injections: tubérosité 2e division, sous-orbitaire, mentonnière"	Dr P. E. Joly Dr G. deMontigny
mardi, le 9 octobre	9.00 à 10.00	salle de cours	théorique	"Médication pré et post-opératoire"	Dr A. C. Voisard
mardi, le 9 octobre	10.15 à 12.00	amphithéâtres A & B	clinique	"Extraction de dents incluses"	Dr P. E. Joly Dr G. deMontigny
mardi, le 9 octobre	2.00 à 3.00	salle de cours	théorique	"Apectomie"	Dr E. Vinet
mardi, le 9 octobre	3.15 à 4.30	amphithéâtres A & B	clinique	"Apectomie"	Dr E. Charron Dr E. Vinet
merc. le 10 octobre	9.00 à 10.00	salle de cours	théorique	"Complications post-opératoires"	Dr A. Fortier
merc. le 10 octobre	10.15 à 12.00	amphithéâtres A & B	clinique	"Résection de frein anormal de la lèvre"	Dr P. Desrosiers Dr G. deMontigny
merc. le 10 octobre	2.00 à 3.00	salle de cours	théorique	"Complications sinusales"	Dr G. deMontigny
merc. le 10 octobre	3.15 à 4.30	amphithéâtres A & B	clinique	"Extraction de racines"	Dr E. Vinet Dr R. Imbleau
jeudi, le 11 octobre	9.00 à 10.00	salle de cours	théorique	"Kystes paradentaires"	Dr J. Tetreault
jeudi, le 11 octobre	10.15 à 12.00	amphithéâtres A & B	clinique	"Alvéolectomies"	Dr A. Fortier Dr A. C. Voisard
jeudi, le 11 octobre	2.00 à 3.00	salle de cours	théorique	"Anesthésie générale"	Dr M. Clermont
jeudi, le 11 octobre	3.15 à 4.30	amphithéâtre central	clinique	"Anesthésie générale"	Dr M. Clermont Dr P. Desrosiers Dr R. Imbleau
vend. le 12 octobre	9.00 à 11.00	amphithéâtre central	clinique	"Revue des patients" "Discussion des cas"	Personnel du service
vend. le 12 octobre	11.00 à 12.00	amphithéâtres A & B	clinique	"Enucléation de kystes" "Injections extra-orales"	Dr J. Tetreault Dr G. deMontigny



Courtesy Bureau of Publications, Saskatchewan

SUNSET ON KINGSMERE LAKE, PRINCE ALBERT NATIONAL PARK



A PRAYER

THOU that hast given so much to me,
Give me one thing more, a thankful heart;
Not thankful when it pleaseth me
As if Thy mercy had spare days,
But such a heart whose pulse may be Thy praise.

—George Herbert.



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PRACTICAL POINTS IN EXODONTIA*

by John W. Clay, Calgary, Alberta

THE practice of Exodontia is based on five essential things. They are psychology, clean technique, knowledge of the subject, technical ability, and suitable equipment, and I believe all are necessary, for good results.

PSYCHOLOGY

Man is, by a wide margin, the superior animal on this planet. It is not so long back, before recorded history that he lived under very primitive conditions in caves and odd sheltered spots. Except for an ability to use crude tools, use fire, and wear the skins of animals, he had not progressed in knowledge any great distance beyond the higher vertebrates of today.

In a comparatively short time, he has acquired a wealth of knowledge and skill, and some reasoning power, but he is still ruled, to the greatest extent, by emotions and instinct. This fact should be kept in mind as it is the basis of success in dental practice. It is particularly so in Exodontia, and I believe that many men, who are technically capable, miss its importance. At no other time are patients so controlled by emotions, so fearful, and yet so appreciative of efforts to ease the mental stress, as well as the pain. It therefore follows that besides skill in doing the necessary work, one

should aim to develop in the patient, a confidence in that skill, and a sure knowledge of kindness and sympathy.

Each one of us can do this best in his own way, but there must be a conscious effort to gain control of the patient's emotions and thinking. I will mention a few ideas that I have found useful.

1. Just at the moment of commencing work for a nervous patient (and few are not nervous) I look him straight in the eye, and say quietly, but with assurance, something such as follows: "I am going to do my best for you and I can promise you will not have a bad time." And then I get to work at once. Before each prick of the hypodermic needle, I say, "Just a little pin prick" and immediately do it, so that there is no period of apprehension. I also often say to a patient who is very tense, "Just relax. I have promised that you will not have a bad time, and I will keep my promise." A bit of talk—call it a steady stream of chatter if you wish—as the occasion dictates, keeps the patient thinking of what you are saying, and relieves tension. To a great extent one can control the emotions of his patient.

2. If you suspect that a patient is likely to faint, or if the patient expects

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to faint before giving the local anaesthetic, have him swallow a third of four ounces of water, to which 15 or 20 drops of aromatic spirits of ammonia have been added. Very positively assure him that this is just a sedative, which will make him feel well. It is a stimulant, and an antidote for procaine, and the firm assurance will do a great deal to influence the psychic factor. Most people have a simple faith in medicines.

3. I never tell a patient that I will not hurt at all, as that is a standard of excellence I have not reached.

4. It is most important for future occasions, as well as the present, not to promise more than you can perform, and of course, keep to the truth.

5. Do not ask the nurse for a long needle as it has a bad effect on the patient. Personally, I ask for a "four", which means a local anaesthetic equipment with a long needle. A bayonet forceps is "22", a mallet and set of chisels is "20". I do not say "hit" or "hammer" when she is to use a mallet, but put it in place, and nod. The first blow is always a tap so the patient knows what is coming, and this is followed by blows, as hard as necessary. If a hard, splitting blow is required I say in a low voice, "split" and expect a tap, and then a hard splitting blow.

6. A low, unexcited voice, and a quiet, confident manner are of great value and they are more important when things are not going well.

7. If you have a difficult case, emphasize the fact that you will take a considerable amount of time, not before, but just after you start to work. If it turns out easier than you expected, you will be credited with skill, and if it turns out that you have a long struggle as promised, your patient will consider you a good diagnostician, and an honest man. Nothing affects the patient's mental condition, or makes him doubt you more, than to say you will be through in five minutes and then take a half hour. Let that happen as seldom as possible.

8. On the same principle, do not underestimate a bit the amount of soreness and swelling to be expected after the operation. The patient will not worry much about that, before the work is done, and again, is agreeably surprised and pleased, in most cases. If after-trouble develops, the patient will be prepared for it, and will know that it was not unexpected.

9. It is probably unnecessary to say that interest in your patient's welfare, after the operation, completes a chain of service that retains his good will and confidence.

CLEAN DENTISTRY

I prefer to use this term, as it embraces a good deal more than the sterilization of instruments. While it is neither practicable nor possible to do a completely sterile operation in routine cases of Exodontia or in any mouth operation, for that matter, one should at least set a high standard of cleanliness. I am sure that we will always have trouble, such as dry sockets and infections following some of our work, but I am sure that the percentage and severity will be reduced considerably, by greater care in this respect. The chance of infection developing also varies directly with the extent of the surgery, the amount of time the operation takes and the amount of injury to the remaining tissues. Local resistance, and the general condition of the patient are also factors.

1. There should be on hand, small packages of sterile gauze cotton pellets, rubber gloves and towels. (A set of four, done up together is very convenient.)

2. In my office, I have a covered, enamelled pan in which I keep a 1-1000 solution of Zephiran Chloride with an anti-rust tablet dissolved in the solution. High germicidal potency, lack of skin irritation, and no unpleasant odour, are all obtained at a very low cost. This drug can be bought in a concentrated solution, so that one dram, put into ten ounces of water, makes a 1-1000 solution. Each morn-

ing, a number of usually needed instruments are placed in this solution so that for ordinary work, there are sterile instruments always available. They are replaced from the sterilizer, as required during the day. A fine carborundum stone kept in germicidal solution is very useful to put a keen edge on chisels or other instruments without contaminating them.

3. An adequate supply of syringes should be on hand, each wrapped in sterile gauze so that infection from this source is barely possible.

4. In a glass container, about four inches in diameter, and with a cover, I keep metaphen an inch or so deep. After boiling, hypodermic needles are kept in this solution, along with a short pair of pliers, so that sterile needles are always available. Always have spares, so that one will not be tempted to take risks as to cleanliness, or using a short needle placed into the tissues as far as the hub. I have seen recently two of these lost in the tissues, because a sterile, longer needle was not available.

5. In a mixture of one third metaphen and two thirds alcohol I keep on hand lengths of about ten inches of 000 catgut, threaded on needles. One will often find it suddenly desirable to put in a suture or two, on completing an extraction. This can be done in a moment, if sterile sutures are at hand. A greater percentage of metaphen makes the gut too soft and sleazy, and a greater percentage of alcohol hardens it. For sutures which I wish to remain in the tissues more than two or three days, I use dermol in equal parts of alcohol and metaphen.

6. A convenient way to handle carpules, is to have them standing in a glass, with the end through which the needle passes, immersed in alcohol. With these precautions, and the needle not contaminated before insertion, one can be sure, that no extraneous bacteria will be introduced into the tissues.

7. The fairly clean mouth is supposed to harbour 400 000 000 bacteria.

Many mouths I look into must be the homes of many times that number. It is obvious that it is impossible to hunt down the last one, any more than we can kill off the last German. Fortunately in the case of the germs, the great majority are harmless. I think it does happen that a patient occasionally has a recent strain of bacteria in his mouth, for which he has not acquired resistance, and these can cause trouble, when introduced into the tissues, or lodged in the open socket. Perhaps this can explain some failures, even when great care has been taken. We must, however, do a careful bit of heart searching, in each of these cases, and see if we have honestly done our best to prevent them.

Some general and local cleaning of the mouth is desirable. It is particularly necessary, where there is active infection which may indicate a strain of organisms at the site of operation, to which there is not adequate resistance. Chronic pyorrheal conditions are less likely to cause trouble as there is a continuous absorption of toxic matter from these sources, which produces its own antibodies.

Where there is tissue infection, it is good practice to use a spray bottle with dilute peroxide, to clear away a large portion of the bacteria-infested debris which is lodged under the gum margin. O'Kell and Elliott have proved that it is possible by careful use of the actual cautery, to sterilize the tissue around the tooth including the gingival crevice, but it is obvious that this is not practical.

We must then content ourselves with reasonable cleanliness of the field of operation, without impairing the vitality of the tissues. We should not do less.

Knowledge of the subject embraces a very wide field. The ingredients of knowledge might be said to be training, experience, and a bit of wisdom. We should fortify ourselves with this mixture, and not rely too much on faith and hope. We need to be well reinforced with knowledge.

EXTRACTION OF TEETH WHERE THERE ARE INFECTED SUPPORTING TISSUES

An important decision in these cases, is the choosing of the time when the least amount of after-trouble may be expected. We must differentiate between chronic, semi-acute, and acute infection, and whether it is apical, coronal, or in the parietal tissues.

Chronic infection:—Where there is simply chronic infection around the tooth, apical or otherwise, timing is of no importance. There is a maximum of resistance established, both locally and systematically, and except at a time of lowered resistance, there is seldom more after-trouble than occurs following the extraction of a tooth from healthy tissues.

Sub-acute apical infection:—Where there is sub-acute apical infection, I do not hesitate, in most cases, to do extractions with the use of local anaesthesia. Even infiltration, high up in the buccal fold around the inflamed tissue, over but not into it, if done slowly, does not in my opinion force toxic substances and bacteria into the blood stream. The local partial stasis and higher pressure cause the solution to move away from the infected area, and the needle point is in uninfected tissue, with, at the most, nothing more than round cell infiltration. In other words, it is in the defense zone. In a large number of cases of this type, I cannot remember having had bad results. In fact, the after results are usually extremely satisfactory both locally and systematically. The same cannot always be said about the avoidance of pain.

There are, of course, special conditions, as for instance for patients with valvular heart disease, where very careful consideration with the physician in charge, is indicated, before action is taken. It is obvious though, that the prompt removal of these teeth is usually advisable, to clear up infection, and to forestall the development of severe trouble, around them.

Acute apical infection:—There has been and still is a wide difference of opinion about extraction of teeth in this condition, I have had good results in removing teeth, under block anaesthesia, which are just at the beginning of acute abscesses, with severe pain, and tenderness to pressure. While there is always the small chance of general infection, or local bone infection following, it does not seem to develop. The small risk is offset by the amount of illness and suffering which occur, if the teeth are left to abscess. Usually, it is a wise procedure, but a careful decision should be made.

The next class is that in which the infection is spreading through the bone, and a deep purplish colour of gum tissue and some swelling indicate that the period of first localized infection has passed. We have all watched these cases develop into long, painful illnesses, particularly, those at the roots of upper laterals and cuspids.

These abscesses can be aborted in many cases. At this stage, a very safe procedure is to part the tissue down to the bone, just over the root apex, and then, with a small spear-pointed drill, punch, through the bone, to a point directly above the apex. One will feel the drill slip into a cavity, drainage is established, an acute abscess is averted, and within a few hours a slight tenderness of tooth and gum is all that remains. A clean gum tissue, and a sterile drill are essential. In a fair number of cases, over quite a few years, I have not seen this fail to abort the abscess, with no appreciable systematic reaction.

This procedure is applicable to all the anterior teeth, and sometimes the bicuspid, and is extremely useful for upper laterals and cuspids, which develop such painful abscesses. The proximity of the antrum, in upper molars, and sometimes second bicuspid, makes too great a risk for its use in these teeth. Also, with lower molars, its use is contra-indicated. In the great majority of cases the tooth

may, as an alternative, be extracted with a minimum of after trouble.

When the above treatment is not advisable, the abscess will go on its merry way, the patient sometimes helped immensely by a sulphonamide (sulphadiazene being, at the moment, the best), and the usual local and general treatment. It seems probable that penicillin will be a valuable aid in the treatment of these cases. Now that it is produced in quantity it will soon be used extensively and we shall be able to assess its value to us.

Pericoronal Infection:—Usually this occurs around erupting, or partially erupted third molars, and I believe there is frequently a mixed infection, with anaerobes present. Of these, Vincent's spirochete is the commonest. I have to thank Dr. Chas. Moore of Lexington, Mississippi, for a specific, for this infection.

A dilute peroxide spray clears away some of the debris. A blunt, fine instrument is bent so that it slips easily under the gum flap, as far as the distal edge of the tooth. This is then wrapped with a small amount of absorbent cotton, and soda bicarbonate in pasty solution is placed in a dappen dish with two or three large pellets of cotton, already saturated in it. The mouth is packed with cotton rolls, the flap well dried, and the cotton-wrapped instrument, dipped in nitric acid inserted under the flap, to the distal of the tooth. After a slight lateral movement, it is removed at once, and the acid neutralized immediately. This is a specific if the acid is carried to depth under the flap, and the only one I know of for these conditions. The whole mouth picture in Vincent's infection improves, following the treatment.

Acute infection of the supporting tissues:—When acute infection has entered from the gingival crevice, it is usually of short duration, and extraction can well be delayed, until conditions are more favourable.

In dealing with all active infections in the mouth, temperature and pulse rate should be checked. These, along

with the present general condition of the patient, and his usual state of health, give additional information, which enables one to make a correct decision. Surgical interference presents a great deal more risk when the patient is feeling poorly, and has developed a fast pulse rate, with high temperature. At such a time it should be avoided if possible.

PRE-OPERATIVE, AND POST-OPERATIVE MEDICATION:

Pre-operative and post-operative medication are valuable helps, in Exodontia, and they are not used frequently enough. There is, however a distinct difference in the qualities needed for these two purposes. When a patient is waiting for the hour to arrive, when teeth are to be extracted, he is usually not in pain, but has a good deal of apprehension. This is not confined to those who show it, but is common to nearly all. The use of a sedative and hypnotic drug before the appointment is of great help, and also eases the problems of the operator. After the work is done apprehension is gone but pain is the problem to be dealt with, pain which may be sufficient to keep the patient thinking of you all through the night. The drug to be used post-operatively must be one which will do its work when pain is present. Hypnotic and sedative qualities are desirable for pre-medication, but for post-operative administration, the essential additional quality is analgesic effect.

In late years, a large number of drugs for pre-operative and post-operative treatment, have flooded the market. They are to replace all such previous remedies. However, in a short time, most of these wonder products disappear, and the answer is, they have been tried and found wanting. With our meagre knowledge and inadequate ability to test new products, we should let someone else do the experimenting. Only a few years ago, you will remember, patients were developing agranulocytosis, and a number died, as a result of new and

extensively advertised preparations. If we had no satisfactory drugs with which to accomplish our purpose, there might be some excuse for our readiness to run the risks with unknown preparations. As it is we have useful and safe products and should use them, remembering always that there are individuals with idiosyncrasies and to be on the alert for them.

For pre-operative use, where no pain is present there are several very satisfactory drugs available. Luminal or phenobarbital is useful for extremely nervous patients some considerable time before the appointment. It is effective for some fifteen or twenty hours and may well be given in these cases at bed time the previous evening. One and one half grains is the usual dose. Taken alone, it is not effective when there is pain. For this reason it is not the best drug for post-operative use. There is moderate after depression when luminal is used.

Seconal (sodium seconal, a barbiturate) is also useful for this same purpose. It is effective for about six hours, the dose is one and a half grains, and it is a sedative and hypnotic, but again it is not satisfactory when pain is present. Because of the short duration a follow-up is necessary before the operation. It is more effective than nembutal but there is a larger percentage of patients with idiosyncrasies to it.

There have been countless attempts to produce better drugs, but for most cases I believe there is nothing as effective as codeine. One quarter grain (occasionally a half) given a half hour before the appointment is very helpful and it is almost always well tolerated. Combined with aspirin phenacetin and caffeine as in the popular tablets it is more effective. The duration is about six hours.

When I require a more potent drug I use one and a half grains of pento barbital or nembutal. This produces its effect in about fifteen minutes with a duration of four or five hours. There is a considerable variation in

susceptibility but a one and one half grain dose has a very large margin of safety.

I frequently have my patients take these drugs before they leave home, which is very satisfactory in a small city like Calgary. With a half grain of codeine or one and a half grains of nembutal, patients should not come to the office alone or be allowed out alone if the drugs are taken in the office. Some of the susceptible ones with senses dulled may get into trouble and if this should occur responsibility would be ours.

For post-operative use codeine is one of the few safe drugs which is effective against pain, having to a lesser degree this quality of morphine from which it is derived. If there is very severe pain a sixth grain of morphine sulphate given hypodermically may be necessary. While nembutal is very effective where pain is present, its continued use is not advisable, as the patient has an undesirable after depression of greater intensity than that from codeine.

At times we have to deal with a patient who has a fairly high temperature as the result of infection around the teeth. Others again develop an infection and temperature following our surgery. If there is a rise of a degree or two above normal which shortly subsides we need not be concerned. The use of a sulphonamide in cases of a temperature in the neighbourhood of 101° , which gives evidence of continuing is very helpful.

In normally healthy adult patients I find a course of six or seven tablets of 7.7 grains of sulphadiazine (a very moderate dose) at four hour intervals will often markedly reduce the infection. Two tablets or 15.4 grains may well be given as the first dose. This drug is apparently the best type of sulphonamide for our purpose, having a record of less frequent and less serious complications than any others in general use. There are some newer ones for which claims of superiority are made but I have not been able to verify them.

We must always remember that there are idiosyncrasies and contra indications to the sulphu drugs and we should be cautious in using them. With their use a large intake of water is always advised. Very shortly, we will likely be using penicillin in their place. It appears to be more effective, has a wider range, and has practically no harmful side effects.

If there is a more serious illness, or the patient is not a good physical risk I think it is good practice to hand over to a physician the responsibility for general treatment.

In conclusion, I think it best to carefully select the drugs we use. It takes time to become acquainted with an instrument in the office, or a golf club on the golf course. And also with drugs we use best those which besides being proven and safe, we know and are experienced with.

EXTRACTION OF TEETH

A talk on exodontia might reasonably be expected to contain something about the extraction of teeth. I cannot discuss the whole subject, but will make a few suggestions about a few problems we may meet at any time. Before extracting, a survey of the possible difficulties should be made.

I have not time to discuss the question of radiograms, but I do think they are as necessary to dentistry as a clinical thermometer is to a medical practitioner. There are times when we can do nicely without them but in doubtful and difficult cases, they are invaluable. Frequently they are indispensable.

While our prime aim is the removal of the tooth, there are several important secondary objectives. The work must, if possible be done without pain. the patient's thoughts and emotions should be controlled, and introduction of infection should be avoided. Sir Berkley Moynihan has this to say about speed in surgery: "It matters less how quickly an operation is done,

than how accurately it is done; speed should be an accomplishment, not an aim."

One should keep in mind the broad principles of surgery. Tissues should be left in the best state for repair, they should not be unnecessarily traumatized, and they should be shaped so that there will be a minimum of after-pain and the most rapid healing. The periostium should not be raised from the bone to a greater depth than necessary. Deep bone cavities do not heal as well as shallower ones, so that the projecting bone should be removed and the surface smoothed. Suturing should be done more frequently to promote healing, and reduce after-pain.

Firmly placed teeth often tax one's ability to remove them without breaking off roots or root tips. I have found it helpful to add to the usual luxating motion, a rotating motion, not however to the extent of snapping off a root. This is very helpful with multiple-rooted teeth, as well as single-rooted ones. When the tooth will not start to move, I find it well to leave it a moment, and if it is a multiple extraction commence on others in the same way. For some reason, on a return to the original tooth, it moves more readily.

One of the most difficult roots to remove is the remaining lingual root of an upper molar, or bicuspid tooth. For this reason, when teeth are being extracted, and a good deal of pressure is necessary, it is always wise to luxate to the buccal with the heaviest pressure, and move guardedly to the lingual. There is then a combination of luxation, moderate rotation, and a buccal displacement. If there is to be breakage of a root tip it will be likely to be the buccal, and this leaves an easier problem.

If the tooth is to be removed in one piece, there will often be a cracking or breaking of the buccal plate and this should be trimmed, before, or after the extraction, first separating the periostium so that the gum tissue is not lacerated. A flap operation and the

removal of buccal or labial bone before extracting the tooth may well be the method of choice.

When, unfortunately, there is a short lingual root tip remaining, I find that the "Cleve-dent", West elevators, Numbers 2 and 3 are extremely useful, and in many cases, the tip comes out, with a little rotating pressure. A hoe excavator, ground quite short and sharp and thin is very useful to pick out bone around the tip, if it will not move with the elevators. Sometimes a small round bur is necessary to cut away dense bone, and make way for the elevators. The drilling (do not heat the bone) is often the best method for high lingual molar root tips in the dense bone of older people whose antral cavities are very close to the root. Drill on the lingual, and mesial or buccal, but not on the antral aspect.

Oozing of blood in the socket often makes it difficult or impossible to determine which is root and which is bone. A few pointed pellets of cotton dipped in a solution of 10 or 12 drops of lysol to four ounces of water and swabbed into the socket followed by a dry pellet or two, aids immensely. There is a very slight "Pinking" of the bone, and the root shows up clearly, for at least a few seconds. I have found this solution infinitely superior to other drugs I have used and the germicidal effect during prolonged working on the tissues is not undesirable. The removal of short root tips, such as the lingual upper roots and the tips of lower bicuspid teeth which are set deeply in the bone is usually best accomplished by the above method.

A word of caution is necessary. The surest way to introduce infection into traumatized tissue is to use a hand piece which has been on the dental engine all day and to let saliva and blood work back and forth under the hand piece sleeve. A spare hand piece put away in sterile gauze, a contra angle kept in metaphen, along with an assortment of burs and drills is not a large investment for prevention.

It is sometimes necessary to do flap operations in these cases, but I find that they usually produce a slow, painful healing, particularly where the adjoining teeth are still in place. When the remaining roots are nearer the bone surface, a flap operation can be done, and it is followed by much less soreness.

Another problem is the lower molar tooth (often devitalized), which is set in dense, thick bone and will not budge on application of the forceps. I find that a lower cowhorn forceps, driven in between the roots rests on the heavy bone and with luxation and heavy closure of the beaks will either elevate the tooth by pressure on the bone or break off the crown, leaving the roots usually somewhat loosened. If loose, elevators will readily finish the job.

In stubborn cases, I use a 6 or 7 round bur, and under moisture remove the connecting tooth tissue and the septum to a good depth. Bone should not be drilled at a high speed, or dry. Where the bone is very dense, it should be cleared well to buccal and lingual. A small concave elevator is then malleted on the mesial of the mesial root, and it is forced into the space provided and then elevated. Similar treatment removes the distal root. If one of the roots has broken off lower than the other, the longer root is usually removed first. In these cases, I believe there is less after-soreness by this method than by making a flap, and removing to depth the buccal plate.

DRY SOCKETS

Before closing I would like to say a word or two about dry sockets. My first advice is to avoid them, as far as possible, by using a clean technique, removing bruised, broken, ragged or loose bone, trimming projecting bone, and suturing when necessary. In addition, keep the socket free from saliva, and cover it for a few minutes with sterile gauze, until a clot forms.

When a dry socket does develop, I can advise the following treatment.

Under block anaesthesia, wash out the loose debris and with proper sized curette, remove carefully the remaining blood clot, till the socket is clean. It is not necessary or advisable to curette the bony walls of the sockets, but a small flow of blood from the gum margin should be allowed to fill the dried out socket. Then place a loose gauze packing saturated with a healing paste or guaiacol or some such drug. This procedure almost invariably gives quick relief. The small amount of infected blood clot at the bottom of the socket appears to have a great deal to do with the continuing severe pain.

I have blown sulphathiazol powder with a No. 36 deVilbiss atomizer into these sockets but still have no idea whether it is of any great value. It does no harm. The ground tablet is harmful because it has insoluble material mixed with the drug as a binder.

SULPHONAMIDES (LOCAL USE)

And just a word about the local use of sulphathiazol powder following ex-

traction. Some time ago I did a series of two hundred cases of extraction of teeth, using sulphathiazol powder in one half of them. I was of the opinion that the unmedicated ones healed best. Where there is active infection of the remaining tissue I believe a film of the powder blown in till it covers the surface is helpful, and should be used. A surplus mass of the material is not desirable. I also think that its use is indicated where prolonged operation has injured the tissues, and saliva has entered the socket frequently during the operation. A clean operation requires little medication; a dirty one demands it.

Very shortly we will be able to determine whether the local use of penicillin is of value. At the moment it looks very promising.

I shall close with a quotation which sums up in nine words all that I have had in mind to say to you this evening. I have found it worth remembering: "Prove all things; hold fast to that which is good."

Profession and Trade:—Trade is occupation for livelihood; profession is occupation for service to the world. Trade is occupation for the joy of the result; profession is occupation for joy in the process. Trade is occupation where anybody may enter; profession is occupation where only those who are prepared may enter. Trade is occupation taken up temporarily until something better offers; profession is occupation with which one is identified for life. Trade makes one the rival of any other trader; profession makes one the co-operator with all his colleagues. Trade knows only the ethics of success; profession is bound by lasting ties of sacred honour. — Faunce.

Comfort is a relative thing: a healthy man sitting on a tree-trunk is more comfortable than a sick man with a carbuncle sitting in an easy chair. And which is more comfortable—a man in enjoyment of full health living a robust out-of-door life or an anaemic, under-developed factory or clerical worker with bad teeth, defective gastric juices and myopic vision?—Arthur Bryant.

Someone has said: "Five per cent of the people think; ten per cent of the people think they think, and the rest of the people would rather die than think."

INTERESTING CASE HISTORY

By J. STANLEY BAGNALL, Halifax, Nova Scotia

PATIENTS will quite frequently report to a general hospital for treatment of a tumour, or other serious condition, which is associated in their mind with the extraction of a tooth. The following case report is interesting in this connection.

Mr. A—, 52 years old, was admitted to hospital early in August last year. He had a circumscribed hard swelling over the angle on the right side of the mandible. He stated that he had a difficult tooth removed in the back of the mandible about two and a half years before and that there had been considerable pain and swelling afterwards. X-rays were taken. These showed the bone to be normal in appearance and with the extraction wound completely filled in. The residual ridge was normal in outline and appearance. The outline drawing of the bone, from two different angles, is reproduced in Fig. 1. Comparison made with the two sides of the bone showed no special differences and the patient, after receiving local treatment, was

discharged with instructions to report again, if the condition did not improve.

He reported again for treatment towards the end of Nov., but I did not see him at that time. The record shows that a bone biopsy was made, but nothing pathological was found. An incision was made below the border of the mandible and some pus evacuated.

He again returned late in February. I saw him in consultation and found that he had a well marked localized osteomyelitis. This was shown by the swelling, discharge of pus through the still open sinus and the marked destruction of the bone shown in outline in Fig. 3. He still made frequent reference to the fact that his symptoms had all followed extraction of the tooth. While all the facts now pointed to a diagnosis of osteomyelitis, there were still two questions which had not been answered satisfactorily:

1. Was it likely that the after effects of an extraction would persist for this length of time, particularly where there was no x-ray evidence of

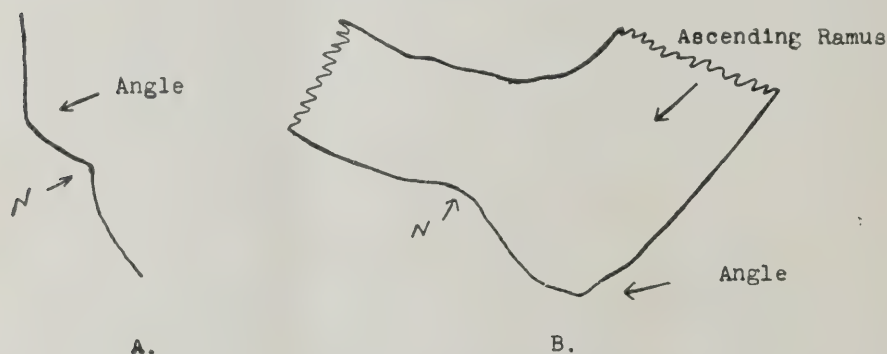


Fig. 1—Outline appearance at 9.8.44.

A. Right lower border, viewed from front. The notch N is very similar to that on opposite side of bone and did not appear abnormal.

B. Mandible in outline, as viewed from underneath. The notch N is also shown here, but could not be compared with opposite side of bone due to angle at which picture was taken.

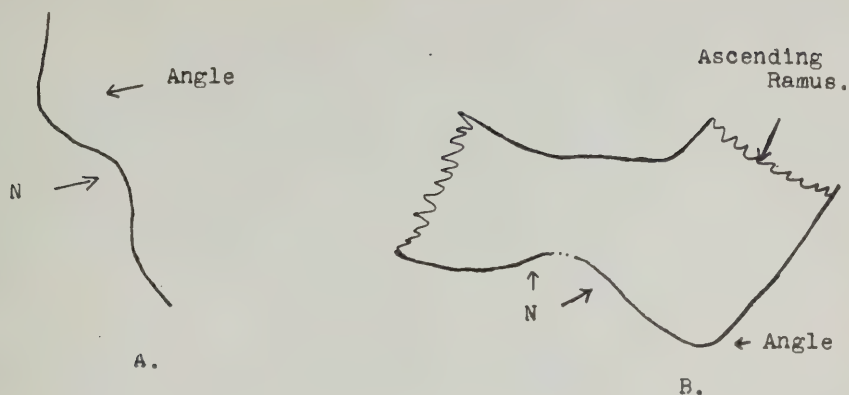


Fig. 2. These outlines of the x-rays taken from same positions as in Fig. 1.

It will be noted that the notch in outline A is now larger than in Fig. 1. The lower view shown in B also shows the growth in size of the notch. The edges are clear cut and sharp, with the exception of a slight break in the border as shown by the dots. Date 16.11.44.

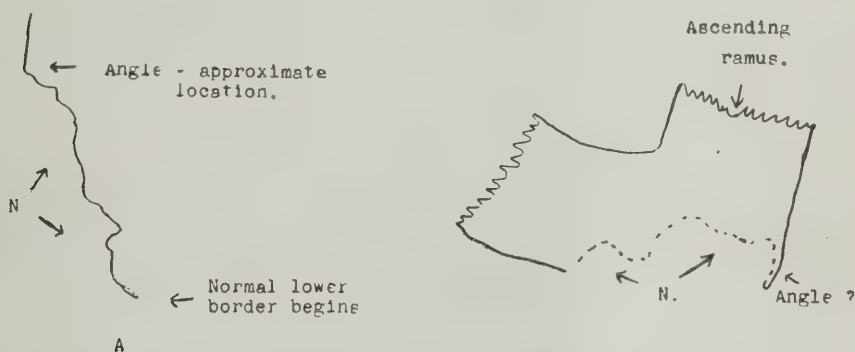


Fig. 3 Shows the rapid increase in destruction of the bone. This gives the clinical picture of a localized osteomyelitis. Dotted line in B denotes the now quite hazy outline of the former notch. 28.2.45.

bone pathology in the region where the tooth had been extracted?

2. The osteomyelitis might be the result of a blood borne infection, but was it possible that something had been missed?

The only thing significant in the mouth was that there was a localized swelling of the soft tissues on the lingual side of the mandible in the third molar region. This was about the size of a plum, quite hard and tense, slightly sensitive on pressure. The rest of the mouth was still normal in appearance. This swelling could be the result of the bone infection. X-rays were

again taken and on examining these it was found that a set had been taken late in November. The outline of these is shown in Fig. 2. The clear cut notch N which was particularly in evidence when viewed from below was noted. The striking appearance of this notch was that the bone edge was sharp and clear cut. It did not suggest osteomyelitis, but rather a change in the bone outline as a result of pressure. In the effort to secure an answer to the cause of this pressure change a biopsy of the soft tissue swelling on the lingual of the ridge was made. The pathological report stated that it was a "Highly An-

aplastic Epithelioma". The new growth had been buried in the floor of the mouth and had not been apparent in the earlier examinations. Identification of this growth not only satisfactorily explained the earlier clinical symptoms of swelling, but also the pressure changes in the outline of the border of the mandible. While the swelling was associated in the patient's mind with the extraction of the

difficult tooth it now seems most unlikely that there could be any connection with the tooth.

The diagnosis of a case should agree with the clinical symptoms and all the observed clinical symptoms should agree with the diagnosis. If there is not complete agreement in these respects check back to see if something has been missed.

ANNOUNCEMENTS

University of Montreal, Faculty of Dentistry

A Refresher Course in Minor Oral Surgery and Anaesthesia will be held in the new buildings of the University of Montreal, from October 8 to 12. The course will include theoretical and clinical subjects and is limited to twenty practitioners. This course is offered to the members of the Canadian Dental Corps who wish to take a Refresher Course before resuming their private practice.

The fee for the course is twenty-five dollars. Applications should be filed with: the Dean, Faculty of Dentistry, University of Montreal, 2900 Mount Royal Boulevard, Montreal, Quebec.

21st Fall Clinic, The Montreal Club

The following essayists will take part in the Fall Clinic of this Club, being held in Montreal, October 24-26: Dr. G. A. Coleman, Philadelphia, on "Acrylics in Operative Dentistry"; Dr. C. C. Bastian, New York City, on "Bite Raising"; Dr. F. Messerman, Cleveland, on "Impression Material"; Dr. J. J. Posner, New York City, on "Local Anaesthesia"; and Dr. J. S. Dohan, Montreal, on "Partial Dentures".

The Central Nebraska Denture Study Club will also appear on this program, and other features will include essays on Fluoride in Dentistry, Business Management, Topic Discussions, Questions Forum.

M. L. DONIGAN, *Director*, 1414 Drummond St., Montreal 25, Canada.

Refresher Courses for Retired Dental Officers

Through the co-operation of the C.D.A. Council on Dental Education and the Canadian Dental Corps, courses for officers retired from the Armed Services will be announced in the *Journal* as submitted by the different dental schools. Members who are now serving in the Military Services, as well as those who have been retired, are requested to observe future issues of the *Journal* for further announcements.

Your attention is drawn to the fact that any payments, maintenance grants or fees, under the Post-Discharge Re-establishment Order, are deductible from your Re-establishment Credit. Transportation costs to and from the dental school you choose to attend are payable by yourself.

Correspondence relating to courses should be directed to the Dean of the School concerned.

Joint C.D.A. and O.D.A. Meeting

The joint meeting of the Canadian Dental Association and the Ontario Dental Association will be held at the Royal York Hotel, Toronto, May 27-30, 1946.

The Forum

PENICILLIN THERAPY IN THE TREATMENT OF DELAYED UNION OF A FRACTURE OF THE MANDIBLE

by S. SCOUGALL, M.B., Ch. M., and ROBERT HARRIS, M.D.S.

Condensed from D. Jour. of Australia, March, 1945

THE patient, a male, 48 years of age, was admitted on 21:8:44 suffering from a fracture of the mandible after receiving a blow from a cow's horn.

Examination revealed a compound fracture of the left body of the mandible involving the lower second bicuspid tooth, with upward displacement of the posterior fragment. Under general anaesthesia, open reduction of the fracture, followed by fixation with inter-osseous wiring was carried out on 22:8:44. Two days later a swelling in the region developed, and on the fifth day an offensive purulent discharge came from the wound.

Despite local treatment, this discharge continued, and on 19:9:44 the lower left second bicuspid was removed, together with some small sequestra. An open ferrule splint was applied with an acrylic extension to control the posterior fragment.

The patient was treated as an outpatient until 21:11:44, when he was readmitted, the wound having discharged from a sinus over the site of fracture. On the following day, under general anaesthesia, an incision was made over the site of fracture, sequestrectomy was performed and the bone surfaces were freshened by cutting with rongeurs and roughening of the adjacent surfaces by means of the bone drill.

The contact between the fragments was slight and restricted to a short fibrous union across a space of 2 mm. at the alveolar border.

Implantation of cancellous bone chips from the ilium was carried out and the space between the fragments and adjacent surfaces filled. No attempt was made to restrict the selection of the chips to pieces of any particular or small size. The wound was closed and a capillary tube was inserted through a separate stab wound above the main incision. By means of this capillary tube irrigation of the wound with penicillin 10,000 units in 2 c.c. saline was effected twice daily.

On the fifth day, injection of saline followed by aspiration for bacteriological examination was done. Result-negative.

On the seventh day from operation, the wound had healed except at the lower end. A brick-red gelatinous substance was noticed which rendered reinsertion of the tube (for penicillin) difficult. However, a vaseline gauze pack was applied over the wound to prevent loss of penicillin, and a firm pressure bandage was applied.

On 1:12:44 the penicillin irrigation was discontinued and a dry dressing was applied to the wound. Eight days later, the wound having healed, the patient was discharged. At three weeks from the operation no movement on examination could be elicited.

There are three important points which may be noted from this case: (a) the absence of any restrictive selection in the cancellous grafts, (b) the absence of any intra- or extra-osseous methods of fixation, (c) the rapidity of the process of union.

EMPHASIS ON PERIODONTOLOGY

Editorial by Grace Rogers Spalding in Jour. of Periodontology

In order to promote any cause, to develop any plan or to carry out any project it is essential that emphasis be continually placed upon it. The new graduate in dentistry, while tending to follow his own inclinations in the emphasis he puts on the different forms of dental service, has none the less been largely influenced by his teachers at dental school, by their comparative enthusiasm for their respective subjects. The students reflect the teachers' attitudes.

While there are limitations as to how much of any subject can be taught in the time available yet it is important to discover just how true these limitations are. A just balance should be made between preserving the teeth by restorations and preserving them by applying known means of maintaining health in the supporting tissues.

It is generally conceded that inflammation is undesirable in the gingival tissues because of its probable effect upon the alveolar bone, the depth of the gingival sulcus, and the patient's home care of the mouth. It is seldom that serious attention is paid to slight inflammatory conditions of the gingiva unless the patient complains, although a long series of unpleasant effects may follow; even the loss of the teeth may be an eventuality.

While much information as well as mis-information has flowed under the bridge since the pioneering efforts of Dr. John M. Riggs in periodontia, it is a matter for grave concern that enough emphasis is not yet placed upon the teaching of periodontology in a number of dental schools.

Emphasis on periodontology in dental education can be secured only when it is given at least equal recognition with other subjects taught, and

teachers chosen whose first interest is periodontology. And this must not be a passive interest but an active, enthusiastic one. Enthusiasm is contagious. No one can transfer his interest in any subject to another person unless he is enthusiastic about it.

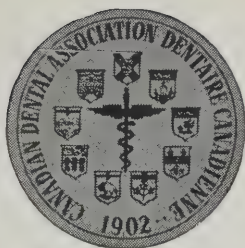
Periodontology needs no apology. It does not need to lean upon any other branch of dentistry or medicine. It is sometimes tied up with Oral Surgery where extreme conditions with spectacular surgery submerge its identity. At the other extreme it has been linked with the training of dental hygienists and preventive dentistry. It has also been dissected and the pieces scattered around among the different departments where its importance is lost sight of.

It is fundamental to dental health service, associated with most dental operations in diagnosis, prognosis, and treatment, and it is the strongest link between dentistry and medicine. In fact, it can no longer be either ignored or given a minor or subsidiary position in the dental curriculum. The time is now when proper emphasis must be given to periodontology in dental practice and in dental education and without apology to anyone.

Our interest in the periodontal tissues has been so superficial and often lacking altogether, that the average dental patient, layman or physician thinks of dentistry in relation to the teeth only and they are surprised when reminded of the fact that without the periodontium teeth would be useless, and if the periodontal tissues are hopelessly diseased the teeth are a menace. We must not serve the teeth less well but the periodontium better.

Let us not continue to be likened unto the foolish man of the parable who built his house upon the sand.

Dentistry should demand the right to participate in conferences where the health of the people is under consideration. — Nathan Sinai.



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Editorial

VICTORY

"Thine, O Lord, is the greatness, and the power, and the glory, and the victory, and the majesty: for all that is in the heaven and in the earth is thine; thine is the kingdom, O Lord, and thou art exalted as head above all.

"Both riches and honour come of thee, and thou reignest over all; and in thine hand is power and might; and in thine hand it is to make great, and to give strength unto all.

"Now therefore, our God, we thank thee, and praise thy glorious name."—1 *Chronicles* 29:11-13.

A war-weary world gives thanks to God for Victory. The guns are silent but there remains the task of laying the foundations of a better world without which the blood and bitter sacrifice of years will go for naught. This is a tremendous responsibility for every loyal citizen and this includes dentists. This is dentistry's finest hour and the only question is whether we will measure up to our responsibilities.

One of the first tasks is the repatriation of our fine men in the Dental Corps, men who gave up private practice and all that involves to serve King and Country. Some have been abroad for a number of years and are very anxious to return home. If a condition exists that there is not enough work to keep them busy while the public at home is suffering from want of adequate dental service, we are sure that those in command will hasten their return. As dentistry is a health service and as the need for dental

service is great in Canada, every possible effort should be made by all concerned to see that these men are returned as soon as possible. Undoubtedly they should be placed high on any priority list. When these men do return, every effort should be made to help them get reestablished, help as to location, help as to equipment, help as to obtaining patients. Nothing that can be done will be too much.

Now that hostilities have ceased many thousands of service men of all ranks will be discharged and for these, much dental service will be required. The present system for handling this work is most inadequate. If men are still required in the Dental Corps, why not have them practice operative dentistry instead of just examining the mouths of returned men, a comparative waste of time and man-power? As stated before editorially, and since then confirmed in many ways, it is impossible for one man to make an examination for another man; consequently this work has to be done all over again once the patient reaches the dentist of his choice. Then the fact that one has to write to Ottawa concerning any change in diagnosis and wait, say a month, for a reply, only adds fuel to the fire of discontent. To climax a most unsatisfactory arrangement, the forms that have to be filled out are so unnecessarily complicated that one has to waste much valuable time in filling them out. Then the fee allowed for examination, diagnosis, prophylaxis and filling out forms, does not cover overhead in any modern office. The patient believes that the government is paying for this service while in reality, this most important feature of the service is carried upon a charity basis.

We have done much recently in placing some emphasis on dental research but we must do much more. We must support all kinds of research as never before if we are going to grow and become strong professionally. "Knowledge is power and new knowledge is fresh power. Research is not the plaything of scholars: it is the laborious, costly, incessant, pains-taking occupation and preoccupation of imaginative men and women who are humbly but actively dissatisfied with even the most that is yet known about men and things." The Canadian Dental Association is to be congratulated upon its recent decision to advance funds to train research personnel.

If any form of compulsory health insurance is adopted, where does dentistry fit into the picture? This matter has been discussed many times but what are the conclusions? Should not a body of interested men from all over Canada be assembled to study this problem from every angle and develop a blue-print that would appear practical as well as helpful to all concerned?

Such matters as have been discussed and many others which have not been mentioned require funds. It requires a strong national body. This body cannot function effectively on our present dues. Full-time men are required to look after these affairs. Recently the Massachusetts Dental Society increased its dues twelve dollars a year believing that one dollar

a month increase was a small price to pay for progress and the benefits to be derived from extended activities of the Society. The Chicago Dental Society has increased its dues from five to fifteen dollars by an overwhelming majority. These Societies are showing us the way. At the very least our dues to the Canadian Dental Association should be ten dollars a year, less than one dollar a month for progressive leadership in the many activities facing dentistry in this country. The question each of us must ask ourselves is this, "Are we going to be pioneers in progress in the coming days?"

M. H. G.

BOOK REVIEWS

Pharmacology and Dental Therapeutics

by Hermann Prinz, A.M., D.D.S., M.D., Sc.D., Dr. Med. Dent., Professor Emeritus of Materia Medica and Therapeutics, School of Dentistry, University of Pennsylvania; and U. Garfield Rickert, A.M., D.D.S., Late Professor of Diagnosis, Dental Therapeutics and Radiology, School of Dentistry, Univ. of Michigan. Revised by Edward C. Dobbs, D.D.S., Associate Professor of Pharmacology, Dental School, Univ. of Maryland; Member of the Council on Dental Therapeutics of the A.D.A. 567 Pages. Illustrated. Ninth Edition. Published by the C. V. Mosby Co., St. Louis, Mo., 1945. Canadian Agents, McAinsh and Co. Ltd., Toronto. Price \$7.50

This is a textbook for students and practitioners brought up to date, the entire contents of the book having been rearranged, the drugs being grouped under their chief sites of action; a plan which makes for continuity.

The book contains two sections, the first on general pharmacology and the second on dental therapeutics, many new drugs having been included. The chapter on prescription writing has been enlarged and simplified. Several chapters including those on the central nervous system, local and general anaesthetics, vitamins, sulphonamides, penicillin, analgesics and dental therapeutics have been rewritten. The material pertaining to therapeutics follows closely the expressed opinions of the Council on Dental Therapeutics and of the Council of Pharmacy and Chemistry.

This is a practical book which should prove well worth while to the general practitioner of dentistry.

M. H. G.

Teaching in Colleges and Universities with Special Reference to Dentistry

by Lloyd E. Blanch, Senior Specialist in Higher Education, United States Office of Education. Formerly Executive Secretary, Curriculum Survey Committee American Assoc. of Dental Schools, and five Associates. 341 pages. Published by the American Association of Dental Schools, 1121 West Michigan Street, Indianapolis 2, Indiana. Price \$2.50.

This book deals with the processes of teaching, with special reference to dentistry and if I were a teacher in dental school, I would want to study this book. If I were a dean of a dental school, I would want to analyze this book carefully and have my staff do likewise.

The dental curriculum is greatly overcrowded. It has been necessary to increase the study of the biological sciences on top of an already heavy schedule of technical subjects, with the result that the student has little time for extensive reading and independent study. So it behooves all concerned to consider how to produce the best results in the shortest time.

The dentist must be expert in diagnoses which means that in college he should have an abundance of practice in reflecting, thinking under the proper guidance. He must develop and hold to the highest ideals of service — the desire to do the very best under all circumstances and to do this he must "come in contact with stirring personalities who have had great adventures with ideas".

"The excitement of teaching comes from the fact that one is teaching a subject one loves to individuals who are worth more than all the money in the world". Teaching

is a sacred calling and so he who chooses to serve in this way should equip himself as efficiently as possible. This book will help.
M. H. G.

Dental Chronology by Hermann Prinz, A.M., D.D.S., M.D., Sc.D., Dr. Med Dent., Emeritus Professor of Pharmacology and Lecturer, The Thomas W. Evans Museum and Dental Institute School of Dentistry, University of Pennsylvania. 189 pages. Illustrated with 97 engravings. Published by The Macmillans in Canada, St. Martin's House, Toronto, Ontario. Price \$3.45.

This book is a record of the more important historic events in the evolution of dentistry. The mechanical devices are not described but the date of their introduction and the names of their inventors are given.

Three periods in the history of dentistry are covered, first, Antiquity to 1000; second, The Middle Ages, 1000 - 1728; third, Modern Times, 1728 to X. To those who write papers or to those who wish to enquire as to the date when a certain event took place this book should prove very valuable. All important events are not included since one fails to find any reference to the American Academy of Periodontology which has done so much for dentistry in the past thirty two years; however, most important events have been included.

"It is pleasant as well as profitable to turn, on fit occasions, from the bustle of active life to the study of the past — to the origin of our art, to the principles and necessities that called it into being, to the struggles of our ancestry" — John Watson.

M. H. G.

DENTAL CORPS NEWS

SUPPLEMENTARY LIST OF CANADIAN DENTAL CORPS OFFICERS

APPOINTMENTS

Rank and Name	Civilian Address
Lieut. H. L. Boyer, 18-5-45.....	Napierville, Que.

RETIREMENTS

Rank, Name and Date	Civilian Address
Capt. W. E. Harlow, 7-7-45.....	Bridgetown, N.S.
Major E. T. Bourke, 15-6-45.....	Montreal, Que.
Lt.-Col. H. V. Driver, 4-7-45.....	Westmount, Que.

Lt.-Col. V. H. T. Jekill, 29-6-45.....	Westmount, Que.
Major E. R. Dixon, 10-7-45.....	Walkerton, Ont.
Major H. R. McLaren, 10-7-45.....	Toronto, Ont.
Major J. W. MacDonald, 30-6-45.....	Toronto, Ont.
Lieut. H. R. Goodfellow, 5-7-45.....	Sault Ste. Marie Ont.
Capt. F. J. A. McCurry, 14-6-45.....	Toronto, Ont.
Capt. C. E. Wright, 17-7-45.....	Toronto, Ont.
Capt. C. H. McKenzie, 29-6-45.....	Souris, Man.
Capt. C. R. Oke, 27-6-45.....	Winnipeg, Man.
Major J. A. Stewart, 18-7-45.....	Maple Creek, Sask.
Capt. T. A. Skinner, 9-6-45.....	Calgary, Alta.

CHANGE OF ADDRESS

Notice of change of address should reach the Secretary's office before the first of the month in which the change is to take effect. Please furnish old as well as new address.

Members in the Military Services are requested to notify respecting change of address as quickly as possible so that the *Journal* will be received at new address.

In all cases, the former address should be given.

Address all communications to:

The Secretary,
Canadian Dental Association, 211 Huron Street, Toronto 5.

Dentists are honest men. Were they not honest, there would be many more wealthy dentists. Dentists have simply been misled in their economics and taught to sell gadgets instead of professional services. That is the conception which must be changed.—J. J. Nevin.

CANADIAN DENTAL ASSOCIATION NEWS

A SUMMARY REPORT OF THE ANNUAL MEETING OF THE CANADIAN DENTAL ASSOCIATION HELD IN WINNIPEG

JUNE 13 - 20, 1945.

Annual Meeting of Board of Delegates

The meeting of the Board of Delegates opened in the Fort Garry Hotel, Winnipeg, on Wednesday, June 13th, at one o'clock p.m. and continued in daily session until the following Saturday at 6.30 p.m. In attendance:

Official Delegates:

R. L. Pallen—British Columbia
R. A. Rooney—Alberta
L. J. D. Fasken—Saskatchewan
M. H. Garvin—Manitoba
Harvey W. Reid—Ontario
F. A. Blatchford—Ontario
S. W. Bradley—Ontario
G. H. Campbell—Ontario
J. A. Fortier—Quebec
Major J. K. Carver—Quebec
V. D. Crowe—Nova Scotia
J. E. Blanchard—Prince Edward Island

Past-Presidents:

A. L. Walsh—Montreal, Que.
Col. George L. Cameron—Ottawa, Ont.
W. W. Woodbury—Halifax, N.S.

Secretary:

Don W. Gullett—Toronto, Ont.

Other Members:

A. D. A. Mason—Toronto, Ont.
D. D. Wilson—Ottawa, Ont.
T. R. Marshall—Toronto, Ont.
R. G. Ellis—Toronto, Ont.
G. V. Fisk—Toronto, Ont.
Harry S. Thomson—Toronto, Ont.
Brigadier F. M. Lott—Ottawa, Man.
J. F. Morrison—Winnipeg, Man.
E. Charron—Montreal, Que.
Frank Martin—Toronto, Ont.
Scott Hamilton—Edmonton, Alta.
Harold Swales—Toronto, Ont.
J. L. Connell—Prince Albert, Sask.
A. J. Brett—Regina, Sask.

Dr. Ashley Lindsay, Dean of the Faculty of Dentistry, Chengtu University, China, was also present at the sessions.

General Meeting

A general meeting of the Association was held at 4.00 p.m. on Monday, June 18. Dr. R. A. Rooney, the retiring President, presented his valedictory address. New By-laws, as published in the January 1945 issue of the Journal, were adopted.

As required under the newly adopted By-laws applications for corporate membership were presented and accepted from the nine provincial dental legal bodies.

At open session questions relating to the general activities of the Association were asked from the floor of the house and answered by the executive officers.

Meeting of Board of Governors

(Under the new By-laws the former Board of Delegates becomes known as the Board of Governors)

The first meeting of the Board of Governors was held on Tuesday, June 19, at nine-thirty a.m. The purpose of the meeting was to receive the report of the Nominating Committee under the new By-laws.

As a result of the report of the Nominating Committee the following officers were elected for the ensuing year:

President: Harvey W. Reid, Toronto, Ont.

Immediate Past-President: R. A. Rooney, Edmonton, Alta.

Vice-President: V. D. Crowe, Truro, N.S.

*Secretary-Treasurer—*Don W. Gullett, Toronto, Ont.

Executive: Drs. Reid, Crowe, Fortier, Pallen and Gullett.

CHAIRMEN OF COMMITTEES

*Nominating—*R. A. Rooney, Edmonton, Alta.

*Legislation—*S. W. Bradley, Ottawa, Ont.

*Finance—*J. A. Fortier, Montreal, Que.

*Publications—*R. P. Lowery, Toronto, Ont.

*Council on Dental Education—*A. L. Walsh, Montreal, Que.

Dental Public Health — H. M. Cline, Vancouver, B.C.

Program—P. G. Anderson, Toronto, Ont.

Ethics—K. M. Johnson, Winnipeg, Man.

Research—R. G. Ellis, Toronto, Ont.

By-laws—J. S. Bagnall, Halifax, N.S.

Necrology—The Secretary

Nomenclature—G. Franklin, Montreal, Que.

Military—G. L. Cameron, Ottawa, Ont.

International Relations—E. Charron, Montreal, Que.

Rehabilitation—G. V. Fisk, Toronto, Ont.

Health Insurance—Don W. Gullett, Toronto, Ont.

Advisory—J. A. Bothwell, Toronto, Ont.

Capt. W. O. Vrooman, Kingston, Ont.—C.D.C.

Reports to Delegates The President

President Rooney emphasized the necessity for regular meetings of the Board and more frequent meetings of the Executive in order to deal effectively with the important problems which are continually arising. He pointed out the valuable services rendered by the committees since the last meeting and emphasized the need for active committees to deal with emergent matters now before us.

The Secretary

The Secretary's report dealt with the following matters:

1. The need for a strong national dental organization.
2. The importance of the every day contacts of the Secretary's office.
3. Details respecting the work of committees.
4. The necessity for compiling accurate Canadian dental statistics.
5. An increase of 9.2 per cent in the number of dentists legally qualified to practice dentistry in Canada since the beginning of hostilities.
6. The recording of Canadian Dentistry at war, in some form.
7. The dependence for advancement of the dental profession upon research.
8. Development of legislation for technicians.
9. Necessity for emphasis to be placed upon the prevention of dental diseases.
10. Report of visitations made.

Recommendation was made on the report that the executive officers arrange for frequent visits to provincial meetings, that consideration be given to recording of the war activity of the profession, that the proceedings be published as in previous years and the effort in compiling dental statistics was commended.

The Treasurer

(Auditor's Report was published in the May issue of the Journal)

Installation of New President

A luncheon was held on Wednesday, June 20, at which time the newly elected President was fittingly installed by Past-President Rooney, after which our new President, Dr. Reid, addressed the meeting. (His address appeared in the July issue of the Journal.)

At this meeting tribute was paid to the memory of members of the Canadian Dental profession who had been killed or who had died while in military service since the beginning of the war in 1939:

Honour Roll

Major F. Boyaner, Saint John, N.B.—C.D.C.

Capt. W. R. Cooper, Moose Jaw, Sask.—C.D.C.

Capt. M. C. Hawkins, Port Hope, Ont.—C.D.C.

Major T. E. Hayhurst, Windsor, Ont.—Essex Scottish Regt.

Capt. H. N. Heal, Calgary, Alta.—R.C.A.

Major J. A. Kerr, Westmount, Que.—C.D.C.

Capt. D. R. McNabb, Edmonton, Alta.—C.D.C.

Capt. H. R. F. Richardson, Toronto, Ont.—C.D.C.

Lieut.-Col. C. W. Steele, Weyburn, Sask.—C.D.C.

Capt. A. Steinberg, Outremont, Que.—C.D.C.

The Association was able to show a surplus for the year ending December 1944. This result was achieved for the following reasons:

(1) The action of the provincial boards in raising their grants to cover members serving in the military forces.

(2) The grant of \$1000.00 received from the Dominion Dental Council for research.

(3) The depositing of the accumulated funds of the Journal Committee to the credit of the Association.

Executive Committee

The Committee held two meetings during the interval since the last meeting of the Board. Both meetings were held in Ottawa and dealt with the revision of the Federal fee schedule in conference with the government officials concerned. The Executive are pleased to report the conclusion of a reasonably successful agreement after much discussion.

In addition many other matters relating to the suggested establishment of a Canadian Advisory Board for rehabilitation purposes, health insurance, arrangements for this meeting, the reviewing of the work of the various committees, and kindred matters were considered. The chairman laid emphasis upon the necessity for more meetings of the Executive in the future.

Committee on Legislation

The chairman reviewed the present situation respecting mail order dentures, pointing out that legislation in the United States now prohibited the use of the mails for such purposes. As a result laboratories conducting this trade are gradually being forced out of business.

Changes in provincial dental acts were reported in Manitoba respecting advertising, in Saskatchewan respecting admittance for examination of foreign graduates, and in Ontario regarding the certification of specialists. The Quebec Act respecting technicians was reported.

Research Committee

The Committee reported that its activity in establishing an Associate Committee on

Dental Research under the National Research Council had been successfully completed.

The inadequacy of available personnel for research is giving the Committee concern and it is intended to turn the attention of the Committee to the encouragement of suitable men to prepare themselves for a career in research.

The future course for dental research in Canada seems to be reasonably clearly defined.

On the one hand, at least a small beginning has been made, with the establishment of the fact that the National Research Council is willing to give some financial aid for active research, if trained personnel are available.

On the other hand, a great effort should be directed towards getting and preparing suitable personnel for conducting research.

When these two phases of this problem have been developed more fully and the program begins to gather momentum, the committee is convinced that financial assistance will be forthcoming from other sources.

Journal Committee

Many changes have been made in the Journal respecting cover design, type and arrangement during the interval since the last meeting. It is now proposed to introduce more colour in the front part of the advertising section together with some colour wherever thought advisable in the text. Other changes are contemplated as soon as war restrictions are lifted respecting the limitation of paper.

The Editor reported the completion of ten volumes of the C.D.A. Journal. The opening of a section on dental public health and the inclusion of other features was advocated, most of which are now hindered by the size of our publication. Evidence of the position of the Journal is given by the great number of reprints carried by other publications. The services of a full time editor would be in the best interests of the Journal and the Association.

The Business Manager presented statistics to show that the financial position of the Journal is the best in its history, mainly owing to the increased revenue from advertising.

Committee on Procurement, Assignment and Rehabilitation

Both the number of dentists in civilian and military practice increased last year. It is anticipated that the ratio of the number of dentists to the civilian population will improve rapidly in the near future with the retirements from military service.

The activities of the committee are now concerned with rehabilitation and it was recommended and adopted that the name be changed to the Committee on Rehabilitation.

From survey figures it is estimated that there will be an excessive number of dental technicians after the war. Therefore, it was recommended that all now in this occupation in the Dental Corps, who have proper qualifications, enter the study of dentistry rather than remain in an overcrowded vocation.

The tabulation of questionnaires received from members serving in the Canadian Dental Corps and the publication of a booklet on rehabilitation for our members in military service occupied a great deal of the committee's time during last year.

Suggestion was made that a War Memorial be established as a memorial to those of the profession who have given their lives in war service. Acting upon this recommendation a special committee for the purpose was appointed by the delegates.

A list of activities for the provincial committees on rehabilitation was presented and will be distributed to the Provincial Chairmen. The committee is pursuing every angle of the problem in a sincere effort to assist our members in re-establishing civilian practice.

Advisory Committee

The committee undertook two main tasks during the year, first the securing of the agreement of all the provincial legal bodies to the proposed By-laws and secondly the establishing of an equitable and efficient relationship between the Association and the Canadian Dental Hygiene Council.

The first task was satisfactorily completed and the second resulted in the following suggestions which were concurred in by the Delegates:

1. The work of the Canadian Dental Hygiene Council is purely in the field of public health education. The Council recognizes the full authority of the representatives of organized dentistry in all matters pertaining to the organization and methods in the rendering of treatment services.
2. The public health educational activity of the Canadian Dental Hygiene Council is and will be developed in harmony with the policies adopted by the official representatives of organized dentistry in the area concerned.
4. The Canadian Dental Association has and shall continue to have definite representation on the Executive to include the Secretary and three other members appointed by the Canadian Dental Association.
5. The Canadian Dental Association recognizes the value of the work done during the last twenty-one years and agrees to support the Canadian Dental Hygiene Council in its effort to educate the Canadian Public in dental health.

Canadian Dental Corps Committee

Action was successfully undertaken by the committee to have the appointment of Colonel George L. Cameron extended for one year after the retirement age.

Recommendations were made that the proper authorities be approached respecting the following matters:

1. That older dentists be retired from the C.D.C. first.
2. That important members of the teaching staffs of various universities be given priority in retirement.
3. That retired members of the C.D.C. be given preference in the dental treatment cases under the Dept. of Veterans Affairs.
4. That a full and comprehensive record of the C.D.C. be compiled as soon as possible.

All recommendations were concurred in by the Board of Delegates.

Brigadier Lott made request that the name of the committee be changed to Military Committee and that the membership be representative of both bodies.—Agreed.

Committee on Ethics

Recommendation was made and adopted by the Board of Delegates that the following be added as item (2) to the statement as now contained in the C.D.A. By-laws under the section entitled Ethics.

2. Violation of the ethical standards of the provincial body to which a member belongs shall be considered as also constituting a violation of the ethical standards of the Canadian Dental Association.

Committee on Health Insurance

The report summarized in detail the present position of Canadian dentistry in relationship to health insurance.

The presently proposed Federal Bill consists of an enabling bill, which is a Federal Bill entitled "The National Health Act" and a model provincial act which is entitled "Second Schedule to this Act." The Federal Bill states that the provincial government shall pass a Bill to enact health insurance in the form of the attached Second Schedule "or substantially in the terms aforesaid" and proceeds to allow leeway for considerable variation. This means that the respective provincial legislatures may vary the proposed pattern considerably.

The dental benefit section of the proposed legislation is in accordance, for the most part, with the recommendations of the C.D.A. The administrative section gave rise to considerable discussion and instruction was given to secure expert advice for clarification of our position. (A minority report was presented dealing chiefly with this latter matter.) The future of the proposed Federal legislation will be considered at the forthcoming Dominion-Provincial conference.

The C.D.A. principles for Dental Health Services were amended as follows:

Principle number 3 was changed to read—"That the administration of the plan be through the cooperation of the Provincial Government and the Dental Board as provided and constituted at the present time under the provincial statute regulating the practice of dentistry in each province."

Principle number 5 was altered by changing the word "regulating" to "regulation" in

the first line and deleting all following the words "as defined in Clause (3)" and substituting the words "That there be authorized for this purpose a committee to consist of five persons, three to be appointed by the Dental Board and two by the Provincial Government."

Principle 12 was added to read—"That the dental profession be adequately represented on all coordinating authorities and committees of any health insurance plan."

Provincial committees were urged to draw up provincial plans in accordance with the adopted principles and to observe carefully at all times legislation being formulated in the provincial legislatures.

Committee on Dental Education

The committee met for two days previous to the meeting of the Board of Delegates and brought before the Delegates the following recommendations:

1. That students entering the study of dentistry should have completed two full years of Arts and Science including the subjects of Physics, Organic Chemistry and Biology (Zoology,) in other words that all Canadian Dental Schools adopt the two-four plan.
2. That the transfer of a student from one Canadian Dental School to another be granted only after a complete transcript of the student's standing and a letter of recommendation from his University be received.—Agreed.
3. That students in the dental course be not permitted to carry supplementals from one year to the next.—Agreed.
4. That Canadian Dental Schools give four years of dental education, each year comprising a minimum of thirty teaching weeks.—Agreed.
5. That the name of this committee be changed to the C.D.A. Council on Dental Education.—Agreed.
6. That the C.D.A. be requested to investigate the question of accommodation for students in Canadian Dental Schools.
7. That a letter of commendation be sent from the C.D.A. to the Minister of Veterans Affairs commending the Department in maintaining the estab-

lished high standards in the preliminary education of student veterans entering university to proceed into the dental profession.—Agreed.

8. That applicants to our dental schools having dental training below that accepted in Canada shall be required to take at least two years training before receiving a degree from any Canadian university.—Agreed.
9. That the C.D.A. negotiate with the Canadian Hospital Association relative to the establishment of dental internships in Canadian hospitals. This resolution was referred back to the Council on Dental Education for further study.
10. That the C.D.A. should appoint a committee to discuss with the Dominion Dental Council the advisability of the formation of a national examining board.—Agreed.

Opinion was expressed that the C. D. A. should appoint a committee to keep under advisement the matter of training dental technicians in order that provincial groups who are faced with this problem might be given leadership.

Committee on Dental Health and Public Relations

The report reviewed the activities during the interval since the last meeting. The study of the report brought about the appointment of a special interim committee which brought before the delegates the following statements which were approved:

1. That there is a great need for clarification of the duties of the Committee on "Dental Health and Public Relations" so that there might be a better understanding of its work with consequent increased interest in this phase of professional responsibility.
2. After study, your Committee finds there exist certain duties of importance which naturally fall in the category of public relations and others in dental health, but that there is an inseparable relationship which makes it desirable for a very close association.
3. This opinion expressed in (2) is based

on the following catalogue of references:

(a) Public Relations Activities:

- (1) Publicity in press and radio.
- (2) Relationship between profession and government health departments.
- (3) Relationship between profession and other public health organizations.
- (4) Vocational guidance.
- (5) Facilitation and distribution of dental health pamphlets, charts, etc., for health education of the public.

(b) Dental Health Activities:

- (1) Education of the dentist in accepted dental health teaching.
- (2) Education of other health workers such as nurses, teachers and students in other health professions with respect to Dental Health.
- (3) Education of lay groups such as home and school and adult education groups, Y.M.C.A., Y.W.C.A., and Red Cross groups, Boy Scout, Girl Guide and other similar groups.
- (4) Preparation of suitable lecture material supplemented by slides and films to assist dentists in dental public health presentations.
- (5) Liaison with Dental Board of the province in respect to supplying educational facilities to meet a local dental group need, e.g. professional instruction to a dental group preparing them to meet a public demand for service which has been stimulated by public dental health education.
- (6) Preparation of dental health pamphlets, charts, etc., for purposes of dental health education of the public.
- (7) Organization, planning and completion of surveys to establish reliable information on dental service needs whenever desired by public relations committee.
4. That in order to set up a national organization with supporting provincial and local responsible committees to function cooperatively, it is recommended—
 - (a) That the Board of Delegates provide for a committee of twelve members.
 - (1) Whose chairman shall be recom-

- mended by the C. D. A. nominating committee.
- (2) Each provincial board shall appoint one member, preferably from the provincial dental health committee hereafter provided for.
 - (3) Two other members chosen by the Chairman from dental colleagues in his own locality. These two members together with the chairman and the local provincial appointee shall constitute an executive committee of four members.
 5. It shall be the chief duty of this national committee to correlate the activities of provincial committees in public relations and dental health hereafter provided for.
 6. That in each province there shall be two committees; one dealing with public relations and the other with dental health matters. It is suggested, however, that some tie-up be provided between the two committees such as reciprocal membership of the chairman and secretary of each committee to the other.
 7. (a) That in each province the provincial board or sub committee appointed by it shall be the public relations committee.
 - (b) That in each province the provincial board shall promote the formation of a dental health committee (if none already in existence) such as will best serve the interests of the province in respect to dental public health.
 8. That the provincial committees described in (7) shall actively promote activities set forth in (3) and report progress

from time to time through the provincial representative to the C.D.A. Committee on Public Relations and Dental Health.

9. It is further suggested that the provincial committee on Dental Health endeavour to work through Dental Health groups sponsored by dental societies in smaller centres.
10. The chairman of the C.D.A. Committee on Public Relations and Dental Health shall report progress, achievements and problems of dental health across Canada to the Board of Delegates at regular meetings.

International Relations Committee

Correspondence was presented respecting representation of the C. D. A. at the Fifth Latin American Odontological Congress to be held at Buenos Aires at the end of the war. Direction was given to investigate the possibility of sending representatives.

Nomenclature Committee

The basis for an active committee upon nomenclature was set forth and provision was made for constructive future work.

Several other reports having to do with kindred activities of the Association were presented.

The President of the Ontario Dental Association appeared before the Board and presented an invitation for the C. D. A. to hold a joint meeting with that body at Toronto, in May 1946. The invitation was accepted.

DON W. GULLETT, Secretary

Brooke, in making a study of bacteria in clinically normal mouths, found that many of them showed a bacterial picture of an acute Vincent's infection and concluded that even in the presence of typically positive slides, if the clinical picture is not complete, the diagnosis of Vincent's infection is insecure. — E. C. Stafne, D.D.S., per North-West Dentistry.

"It is a sign that your reputation is small and shrinking if your own tongue must praise you." — Sir Matthew Hale.

NEWS FROM THE PROVINCES

NOVA SCOTIA:

Annual Convention

The 55th Annual Convention of the Nova Scotia Dental Association was held at Cornwallis Inn, Kentville, August 3 - 4, with 75 members in attendance. In his presidential address, Dr. M. E. Morrison, Antigonish, declared that the refresher course in dentistry for children was perhaps the most outstanding event of the year.

Lectures were given by Dr. P. G. Anderson of Toronto; Dr. F. L. Miller, Fredericton, New Brunswick; and by Dr. W. C. Bushell of Montreal. Hon. Harold Conolly, Minister of Industry and Publicity was the guest speaker at the dinner held Friday evening.

—Halifax Chronicle

The following officers were elected for the ensuing year: President, Dr. M. R. Morrison, Antigonish; Senior Vice-President, Dr. H. M. Eaton, Halifax; Junior Vice-President, Dr. R. Harrington, Bridgewater; Executive Member, Dr. J. P. McGuigan, Halifax; Secretary, Dr. A. B. Haverstock, Halifax; Auditors, Dr. G. A. Chudleigh and Dr. J. P. McGuigan, Halifax; Dominion Dental Council Representative, Dr. W. C. Oxner, Halifax; alternate, Dr. R. R. Dalglish, Sydney; Representative, Canadian Dental Association, Dr. V. D. Crowe, Truro; alternate, Dr. G. M. Dewis, Halifax.

ALBERTA:

Alberta Dental Association

At the annual meeting of this Association, held on July 7, the following officers were elected: President, W. F. Keith of Bassano; Vice-President, H. Baden Powell of Calgary; Secretary-Registrar, R. A. Rooney, Edmonton.

The Board members are H. D. Redding, Lethbridge; H. L. Freeland, Calgary; C. D. Husband, Red Deer; and R. H. MacLean, Edmonton.

At this annual meeting, the following subjects were discussed: means of developing the dental school at Edmonton; means of assisting in the rehabilitation of returned servicemen, including post-graduate courses at the university, assistance in the obtaining of office and housing space, survey of opportunities in the province for locating practices, development of plans for assisting the depart-

ment of veterans' affairs, and co-ordinating of clinical programs of dental societies to be of particular use to men returning from army practice routine to private practice.

Plans were discussed with a view to working with the provincial department of health in the extension of dental health security in rural areas, particularly in view of the economic aspects. There was also a discussion of the development in the educating of nurses in training on dental health problems, and education of the public concerning dental health. Dental benefits under provincial participation in federal social security legislation were also discussed.

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Edmonton Dental Society

This Society held its second monthly Golf Meet at the Highlands Golf Club, on July 12. This was followed by a chicken dinner, prizes, and the usual round of stories.

There were nineteen members and two visitors present, the visitors being Dr. W. E. Janzen, from Wetaskiwin, and Captain Boyce, from the U.S. Army Medical Corps.

Dr. J. D. Hawkins was in the chair, and Dr. D. E. Florence was responsible for all arrangements.

ONTARIO:

Northern Ontario Dental Association Convention

Sudbury was chosen as the centre of attraction for Northern Ontario Dentists on September 1. The meetings were held at the beautiful Idylwyld Golf and Country Club and were under the able direction of President Dr. W. G. Mahaffy and his able executive. These officers were: Past Pres. Dr. A. H. Hudson of Timmins; Vice-Pres. Dr. F. C. Fraser of Sudbury; Sec.-Treas. Dr. Ralph Foster of North Bay. About 30 dentists attended the convention, representing most northern centres, to enjoy traditional hospitality of the Society, this year arranged in co-operation with the Sudbury Dental Association with President and Secretary Dr. G. N. Murphy and Dr. E. D. Skuce respectively.

Guests and speakers of the meeting were all from Toronto. Dr. Gordon Johnston gave a practical lecture clinic on the use of silver amalgam as a dental restoration. Gordon does

beautiful work and has many very helpful suggestions to improve amalgam technic.

Dr. D. W. Gullett, Registrar Secretary of the Board of the Royal College of Dental Surgeons, was the special luncheon speaker. He discussed problems of rehabilitation of dental personnel and dental services to the discharged veterans of the war. He solicited co-operation with the department of Veterans' Affairs. Dr. Gullett also read a short paper urging his colleagues to "Raise Their Sights" and obtain an enhanced view of the possibilities of dental service. He asked for an improved appreciation of the biologic aspects of dental practice, pointing out that the basic control of dental diseases lay in early interception of these diseases.

Dr. T. R. Marshall, Secretary of the Dental Public Health Committee of the Ontario Dental Association, presented a discussion of Dental Health and Public Relations Problems. He suggested a program of three main principles (1) Increased activity of dental public health participation by all dentists privately and publicly to raise the general understanding of people as to the nature of dental diseases and their control. (2) A special dental health program with regular biennial dental inspection for all children including pre-school, primary and secondary schools. For the pre-school and first four grades of primary school a treatment service at public expense and this to be made available to all children for complete preventive care. Finally (3) promotion of dental appointments on salary to every hospital and health unit as part of the professional staff.

Dr. Frank Kohli, recently discharged from the Canadian Dental Corps, now back in his former role of director of dental services in the provincial government, brought greetings from his department to the meeting and expressed his pleasure on being invited.

Dr. Roy Ellis, Professor of Operative Dentistry in the Faculty of Dentistry, University of Toronto, proved himself not only a good teacher but a versatile traveller and speaker. Dr. Ellis presented a lecture on "Dental Silicates, Their Uses and Abuses" in an academic session which was highly instructive. He later addressed the members



DR. W. G. MAHAFFY,
President, N.O.D.A.

and their ladies at the president's banquet on the subject of "Why Travel". Roy amused his hearers with his travel stories and humour, all of which indicated he has been around a bit; moreover he proved this by splendid motion pictures to the delight of all.

During the business meeting of the association it was agreed to hold the 1946 convention in Timmins. The new officers are: President: Dr. Joe Martin, Timmins; Vice-Pres. Dr. Perc. Hill, Kirkland Lake; Sec.-Treas., to be appointed by the Porcupine Dental Association. The Dental Public Health Representative is Dr. Henry Hudson and associated with him are Dr. Fred Starr, Sudbury; Dr. Len McCool, North Bay; Dr. F. V. Grady, Sault Ste. Marie; Dr. W. Alston, Little Current; Dr. Robson, Kirkland Lake and Dr. J. C. A. Crawford, Haileybury.

The meeting concluded with music and dancing, rounding out a very profitable and pleasant day.

"True glory lies in the silent conquest of ourselves."

EMPIRE NEWS

GREAT BRITAIN:

University of Manchester and D.D.S.

In 1937 this University established the degree of Doctor of Dental Surgery, the first university in the United Kingdom to do so. The degree is awarded to graduates who have held a dental degree for not less than two years, and have pursued in some department of the University for one year, a course of advanced study approved by the Faculty of Medicine, and have been engaged for at least one year in research on some problem within the field of Dental Surgery. All candidates

shall present a thesis which must be a substantial contribution to knowledge. A written or oral test may also be demanded. The first award of the D.D.S. has just been made.

England Has College of Speech Therapists

A college of Speech Therapists has been formed in London to study and correct speech defects. It is expected that each major hospital eventually will have a trained speech therapist. The new college has an enrolment of between two and three hundred members.

GENERAL NEWS

Dr. Arthur H. Merritt of N.Y. Honoured

Dr. Arthur H. Merritt, Past President of the American Dental Association and the American Academy of Periodontology was awarded the honorary degree of Doctor of Science by New York University on June 13th. Thirteen thousand graduates, faculty members and guests took part in the Commencement exercises.

Medical and Surgical Relief

All dentists or others who have dental literature of any nature—magazines, pamphlets, or books—written within the last five years are urged to send whatever copies they can spare to the Medical and Surgical Relief Committee at 420 Lexington Avenue, New York 17. The Medical and Surgical Relief Committee, which has been supplying hospitals, missions, welfare agencies, and the fighting forces of America and her Allies with medical, surgical, and dental supplies since 1940, is starting a campaign to collect scientific publications for the use of European professional men who, because of the war have been unable to keep up with new discoveries and progress made in many fields. The Committee has received earnest appeals, especially from French and Italian authorities, for all the recently published material on dental subjects it would be possible to obtain.

Medical and Surgical Relief Committee
420 Lexington Ave. New York 17, N.Y.

Dental Hygienist Bill Passes

A bill to register dental hygienists in the state of Illinois has successfully passed the Senate and the House and awaits the governor's signature to make it law.

Doctors Urge Defeat of Bill

Under the heading, "Editorial Comment," Warren W. Furey wrote the following in the *Chicago Medical Society Bulletin*, April 28, 1945, on the ownership of x-ray films.

"It has long been the custom of physicians to regard x-ray films as the property of the physician, with occasional release of the films to the patient or to another physician on permission of the original physicians. Court rulings have established this as a legal procedure and have further stated that payment for the radiologist's services is made for an expressed opinion and is not the purchase price of the films.

"The Illinois legislature through Senate Bill 325 and House Bill 477 would completely reverse this accepted opinion. These bills, introduced concurrently, would give the patient full property right to the x-ray film. Such a law would, unquestionably cause much confusion and the difficulties that might arise could be harmful to the welfare of many patients. One real difficulty would arise in personal injury cases for medico-legal consideration; release of such film to the patient would immediately make them worthless in court. Further interpretation of

the films by inexperienced persons might result in gross diagnostic errors and improper treatment of the patient. All in all, this type of legislation can do much harm without benefit to anyone.

Chicago Dental Society

This Society is considering the possibility of organizing the following projects:

1. An experimental dental prepayment plan.
2. A dental health education program in the Chicago school system.
3. An experimental dental examination and treatment program for pre-school children.
4. A course in dental socio-economics for dentists to be conducted jointly by the Chicago Dental Society and the University of Chicago.

Chicago Dental Society Announces Its Fifth Annual Prize Essay Competition

Author of Best Essay in this National Competition Will Receive Cash Award of \$500.00

The Chicago Dental Society, to encourage continued scientific research in all phases of dentistry, again offers a cash prize of \$500.00 to the author of the most meritorious essay reporting an original investigation and containing new and significant material of value to dentistry.

The winner of the award will be invited to present his essay at the 81st Midwinter Meeting of the Chicago Dental Society to be held in Chicago during February 1946. Expenses of winner will be paid by the Society and will be in addition to the prize of \$500.00.

Any member of the American Dental Association, or of a recognized foreign dental society, or anyone affiliated with a recognized institution in the dental field may apply for authorization to enter the competition. The contest is not limited to research men having technical staffs and elaborate equipment at their disposal, but is open to any qualified person who believes he has something new and important to contribute to dentistry. The rules are simple and fair and all contestants, whether students, teachers or practitioners, have an equal opportunity.

Application forms and contest rules may be obtained by writing to the Chicago Dental Society, 30 N. Michigan Avenue, Chicago 2, Illinois. All applications to participate must be filed in the office of the Society by October 1, 1945.

This Society, by a vote of 10 to 1, has approved an increase in annual dues from \$5.00 to \$15.00.

National Research Council

Dr. R. G. Ellis, Faculty of Dentistry, University of Toronto, has been appointed Chairman of the Dental Associate Committee of the National Research Council. Dr. Ellis is proceeding with the organization of the work of this Committee and is making arrangements for future meetings.

Mr. S. J. Cook of the staff of the National Research Council has been appointed Secretary of this Committee. Mr. Cook is also Executive Secretary of various medical committees of the Council.

Dentists in U.S.A. Included Under Preference Rating for Tires

Dentists in U.S.A. are included under a preference rating, issued July 1 by the Office of Price Administration, which establishes eligibility in obtaining automobile tires for essential uses.

Statement on Fluorides for Control of Dental Caries

The following statement on the desirability or necessity of incorporation of fluorides in dentifrices and mouth washes for the control of dental caries was adopted by the Council on Dental Therapeutics of the American Dental Association at its recent annual meeting: "The Council is of the opinion that for the control of dental caries, the routine use by the dental profession or by the laity of foods, drugs, mouth washes, dentifrices and other preparations in which fluorine occurs naturally or to which fluorides have been added is not justified because of their unestablished value and their known potential deleterious effects from the systemic absorption of fluorides. The Council will continue to evaluate new data as they become available."

Typhoid Fever

C. H. Hodgson, Division of Medicine, Mayo Clinic, reports in "Proceedings of the Staff Meetings of the Mayo Clinic" that 17 per cent of 71 patients who had been treated for pure typhoid fever had had three injections of typhoid vaccine within three years of the onset of the disease and that on the

average the severity of the disease was only a little less great than in the vaccinated group. He points out that it is known that vaccine does not give absolute protection and that persons who receive typhoid vaccine should be cautioned that they must take no more chances with regard to food and water than persons who are not vaccinated. Vaccine gives some protection but not absolute protection.

Oral Administration of Penicilli in Corn Oil and Lanolin

*From Schenley Research Institute,
Lawrenceburg, Ind., via Science*

SUMMARY OF REPORT

Oral administration of penicillin suspended in equal parts of corn oil and lanolin extends the maintenance of the penicillin level in the system (as determined by urine bio-assay). Measurable quantities were found 24 to 42 hours after ingestion.

Recovery of the penicillin is about five times higher than under administration in saline solution.

Migraine

The Division of Medicine, Mayo Clinic, has reported on a new product in the Treatment of Migraine. The drug is known as D.H.E.-45 (dihydroergotamine) prepared by the Sandoz Chemical Company, and was used on 120 patients. The following is a summary of the report appearing in Proceedings of the Staff Meetings of the Mayo Clinic, July 11, 1945: "Our clinical experience with use of the new drug, D.H.E.-45, in treatment of 120 patients who had migraine, indicates that it is a safe and efficient preparation to use in aborting acute attacks of headache."

"In attempting to evaluate any new drug

for the treatment of migraine, it is important to adhere strictly to accepted criteria for diagnosis of this syndrome. Of the 120 patients, seventy-nine exhibited all features of typical migraine. Of these seventy-nine patients, 75 per cent derived good to excellent results from use of D.H.E.-45. The remaining forty-one patients had a typical migraine and only 36 per cent obtained good to excellent results with D.H.E.-45."

"A comparative study of D.H.E.-45 and ergotamine tartrate indicated that D.H.E.-45 was just as effective as ergotamine tartrate in relief of acute attacks of headache. Neither D.H.E.-45 nor ergotamine tartrate will prevent the occurrence of future attacks. Toxic reactions were noted three times more frequently with ergotamine tartrate than with D.H.E.-45. As used clinically, changes in blood pressure were not observed following use of the new drug. It apparently exerts no effect on the uterus and in this respect contrasts with ergotamine tartrate."

Scientists in Russia

Some of the British scientists who recently visited Russia have been recording their experiences. They stress the fact that science seems to receive enormous encouragement from the State and generous recognition by the people. There are now 150,000 qualified medical men and women but that is not sufficient. A large number of "Feldschers" are still used. They have had three years' training in practical work and practise under supervision. The medical students receive pay throughout their training which lasts six years. After qualification the medical man has to serve for three years wherever the need is greatest.—*Dental Record*.

IN MEMORIAM

H. A. Freitag of Eganville, Ontario, aged 46, died at Pembroke, August 11. He was graduated from the Faculty of Dentistry, University of Toronto in 1921.

Dr. Freitag is survived by his widow, one son, two daughters, his mother and two brothers.

Leo Dennis Leonard of Toronto, Ontario, died suddenly at his office on August 16.

He was graduated from the Faculty of Dentistry, University of Toronto in 1914. He served with the Canadian Dental Corps until 1920. He was a member of St. James' Parish and the Knights of Columbus.

Dr. Leonard is survived by his widow and three daughters. A son was killed during an operational mission over Germany in June, 1944.

SECTION FRANÇAISE

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La Carie Dentaire

Ses causes—La prévention

par PHILIPPE HAMEL, B.S., D.D.S., Québec

(suite & fin)

LES ACIDES DE L'ORGANISME

Les acides de l'organisme sont les acides carbonique, phosphorique, sulfurique, oxalique, lactique, oxybutyrique, aceto acétique. Ce dernier acide est le produit de l'incomplète oxidation des hydro-carbonés. L'acide B oxybutyrique et l'acide aceto-acétique ou diacétique sont les produits de l'oxydation incomplète des corps gras.

RESERVE ALCALINE

Le bicarbonate de soude fournit un excès de base après avoir neutralisé tous les acides. Cette somme de bicarbonate constitue ce que l'on appelle la réserve alcaline. Elle doit être normalement de 50 à 65 grammes par 100 cc. La relation normale du bicarbonate par rapport à l'acide carbonique est de 20 à 1 —



Quand la réserve de bicarbonate diminue, cette relation de 1 à 20 est changée du côté acide et nous sommes en présence de l'acidose. Cette acidose est compensée quand le centre respiratoire répond à cet excès d'acide et maintient une concentration normale des ions d'hydrogène. Elle n'est pas compensée quand le centre respiratoire ne répond pas rapidement à l'excès d'acide.

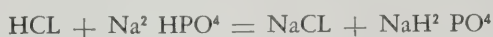
2°. — ALCALOSE

Si le sang tend à s'alcaliniser, le CO^2 diminue. Le centre respiratoire est moins stimulé par le CO^2 et le rythme de la respiration diminue. Il s'élimine moins de CO^2 pour faire contrepoids dans le sang à la tendance vers l'alcalose. Il se forme des carbonates.

PHOSPHATE DISODIQUE $\text{Na}^2 \text{HPO}^4$

A part le bicarbonate de sodium, l'organisme humain possède un autre moyen de neutraliser les acides dans le sang et de maintenir la concentration normale des ions d'hydrogène: le phosphate disodique = $\text{Na}^2 \text{HPO}^4$ (monoacide), forme chimique qui ne se rencontre pas dans l'alimentation.

En présence d'un acide, le phosphate disodique cède une molécule de base pour neutraliser l'acide et prend une molécule d'hydrogène de l'acide pour former un phosphate monosodique ou diacide de sodium que le rein élimine —



PROTEINES

Les protéines agissent aussi comme tampon pour les acides et les alcalins.

FOIE

Le foie transforme l'urée $\text{NH}^2 \text{CO NH}^2$ en ammoniacque NH^3 qui est alcalin. L'ammoniacque forme, avec les acides, des sels ammoniacaux que le rein élimine.

REIN

Le rein enfin élimine directement des acides de même que les sels ammoniacaux, les phosphates, les chlorures, et les carbonates formés par les bases pour neutraliser les acides dans l'organisme.

TROIS SORTES DE REGULATEURS

Il y a donc trois sortes de régulateurs du pH sanguin: les poumons, les reins, le foie. Le bon fonctionnement de ces organes est d'une grande importance pour la vie et la santé, mais aussi pour la conservation des dents.

LA SALIVE

Après avoir repassé sommairement les grandes lignes de la biochimie qui expliquent la stabilité du pH sanguin, revenons à la salive et voyons si elle ne reflète pas la tendance de l'organisme vers l'acidose ou l'alcalose.

Weston Price établit qu'un changement dans la concentration des ions d'hydrogène dans le milieu normal où se trouve la dent, est une cause de la carie. *Broderick* reconnaît que la salive est plus alcaline dans les cas de pyorrhée alvéolaire, et plus acide dans les cas de carie. En ce point, il est secondé par une pléiade d'autorités.

Prinz déclare que, selon lui, la quantité de salive est le principal facteur qui gouverne la cause de la carie dentaire.

Pickerell attachait aussi une grande importance à la quantité de salive et aux enzymes de la salive pour la préservation des dents.

Starr et Broderick démontrent, par des examens répétés de la salive, qu'elle reflète le métabolisme de l'organisme. Les aliments acidifiants, tels le régime carné et les hydrocarbures, acidifient l'organisme et donnent une salive à réaction acide. Les aliments alcalinisants, tels les fruits, les légumes, donnent l'effet contraire.

On a même remarqué que la salive a un pH moins élevé (plus acide) à mesure qu'avance la journée, parce que l'organisme se charge de produits de combustion et se ressent de la fatigue qui n'est rien autre que l'accumulation d'acides de combustion interne et de certaines toxines. On peut faire disparaître la fatigue par l'absorption

d'une dose de quarante à cinquante grs. de bicarbonate de sodium que l'on peut répéter au besoin à de courts intervalles. Ce sel neutralise les acides produits par l'activité musculaire et fait disparaître en partie la sensation de fatigue.

Le pH de la salive, d'après *Starr*, correspond au bioxyde de carbone alvéolaire et à l'acide carbonique du sang plutôt qu'au pH du sang lui-même, en un temps donné. Le facteur étiologique de la réaction salivaire est plutôt ce qui compense le pH sanguin que le pH du sang lui-même, puisque ce dernier, je le répète, ne peut varier que d'une fraction d'unité. Nous l'avons vu, la limite de la variation du pH sanguin est de 7.3 à 7.5. C'est l'explication de l'écart entre le pH sanguin relativement stable et le pH de l'urine et le pH de la salive qui tous deux varient assez fortement.

La concentration des ions d'hydrogène et celle du CO_2 dans la salive sont semblables à celle du CO_2 dans l'air alvéolaire. Celui dont la respiration est sous-normale, ce que l'on rencontre, par exemple, chez le bègue, donne une salive acide 6.3, parce que ses poumons n'éliminent pas suffisamment le CO_2 ; son organisme en souffre et tend vers l'acidose.

On peut, en faisant simplement de profondes expirations durant quelques minutes, produire une alcalose dans son organisme. Par ces longues expirations, on élimine une plus forte portion de CO_2 que la normale, et le sang tend vers l'alcalose.

Les nerveux qui respirent rapidement, ont d'ordinaire une salive alcaline. Ils éliminent plus de CO_2 que la normale et enlèvent ainsi du sang, par hyperventilation pulmonaire, un élément régulateur, le CO_2 .

L'émotion donne une réaction alcaline à la salive pour la même raison: respiration rapide, et trop forte élimination de CO_2 .

Il peut arriver aussi que le centre respiratoire d'un patient ne réponde pas assez rapidement à la concentration des acides de combustion et que l'organisme, par ce défaut constitutionnel, reste en état d'acide permanent, par sousventilation pulmonaire.

Le patient au thorax mal développé par manque d'exercice physique ou par rachitisme, aura une tendance à retenir du CO_2 et à maintenir la circulation sanguine en permanence du côté de l'acidose.

LE MAL DES MONTAGNES

Quand un patient monte à une haute altitude, l'oxygène de l'air se raréfie. La tension de l'oxygène de l'air alvéolaire contenu dans ses poumons devient inférieure à la tension de l'oxygène dans le sang. Les échanges ne peuvent plus s'opérer normalement. L'oxyhémoglobine se dissocie. Le sang perd de l'oxygène par le poumon au lieu d'en absorber. Il se produit une sorte d'asphyxie par anoxémie (insuffisance d'oxygène dans le sang). C'est le mal des montagnes. En même temps, le CO_2 de l'air diminué et sa tension étant inférieure à la normale, le sang élimine plus de CO_2 par voie pulmonaire et il se produit une alcalose dans l'organisme.

CORRELATION DE LA REACTION SALIVAIRE

AVEC { L'URINE
LA RESERVE ALCALINE
L'EQUILIBRE ACIDO-BASIQUE.

Broderick (21), d'après ses expériences, a trouvé une corrélation entre la réaction de la salive et celle de l'urine; entre la réaction de la salive et la réserve alcaline du sang; entre la salive et les modifications de l'équilibre acido-basique du sang. De là, il croit légitime de conclure que la réaction de la salive dépend de l'équilibre acido-basique du sang, équilibre qui est lui-même le reflet du métabolisme à un temps donné.

(21) Opus cit. Broderick, p. 215.

LA SALIVE REFLETE LES VAGUES D'ACIDOSE ET D'ALCALOSE

La salive reflète même les vagues d'acidose et d'alcalose qui se produisent au moment de la digestion.

On a nié la valeur de l'analyse de la salive et l'étude de son pH. En faisant l'examen colorimétrique du pH, on arrivait à des conclusions erronées parce qu'on négligeait certains facteurs dont en voici quelques-uns:

La salive est neutre au papier tournesol qui devient rouge au pH 5.3 et devient violet au pH 7.0 (point de neutralité).

Elle est alcaline au méthyl-orange qui donne une teinte rouge en présence d'une solution au pH 2.0; orange, au pH 4.00; jaune, au pH 5.00; et ne varie plus au pH plus élevé.

La salive est acide au phenolphthaleine qui demeure incolore jusqu'à ce que la solution atteigne un pH 8.3, alors qu'il prend une couleur rose.

Il n'est rien de surprenant que l'on tire des conclusions erronées si l'on s'appuie sur une colorimétrie aussi imprécise.

REACTION SALIVAIRE APRES LES REPAS

Si vous prenez la réaction salivaire de une à trois heures après un repas, la concentration des ions d'hydrogène dans la salive sera moins forte que si vous la prenez trois ou quatre heures après ce même repas.

A la première prise de salive, disons une heure après un repas, le pH sera du côté alcalin, parce qu'à ce moment, il y a dans l'organisme une légère vague d'alcalose due à la formation de l'acide chlorhydrique pour le suc gastrique. (Le pH du suc gastrique peut descendre à 1.4 et 1.7). Pour former le suc gastrique, NaCl du sang se décompose ainsi:



HCl passe dans l'estomac, et NaOH (Hydroxide de sodium) une base, reste dans le sang pour se combiner avec CO^2 et reconstituer NaH CO^3 , le bicarbonate de sodium, de là l'alcalose temporaire.

Si vous analysez la salive à ce moment, son pH sera plus élevé, c'est-à-dire du côté alcalin. Maintenant, si vous prenez le pH de la salive trois ou quatre heures plus tard, il sera moins élevé, c'est-à-dire du côté acide, parce que la digestion intestinale sera commencée et que la sécrétion pancréatique étant alcaline, il se produira une réaction à l'inverse de celle pour le suc gastrique. La base passera dans l'intestin et l'acide demeurera dans le sang. De là, deux vagues durant la digestion: la première, alcaline; la seconde, acide. Et la salive, par sa réaction, reflète ces modifications temporaires et physiologiques du pH sanguin. Bien des auteurs ont négligé de tenir compte de ces réactions qui, à moins de leur donner l'explication scientifique, viennent jeter la confusion dans les recherches.

LE CO^2 DANS LA SALIVE

Une autre source d'erreur que Broderick paraît avoir été le premier à signaler: c'est que pour évaluer le pH de la salive, la première réaction donnée par le colorimètre n'est pas la seule importante. En laissant séjourner la salive quelque dix minutes dans un réceptacle ouvert, on constate que le pH varie de 0.6 à 0.2, parce que, au repos à l'air, la salive élimine le CO^2 qu'elle contenait, et sa réaction devient alors moins acide ou alcaline.

Voici l'explication donnée par Broderick (22). Elle ne me paraît pas très claire.

Si à la première épreuve au colorimètre, le pH de la salive est 6.6 (salive acide), et si, dix minutes plus tard, à une seconde épreuve, le pH est de 7.0 (salive neutre), la première épreuve donnera la force de la solution tampon; et la seconde, la mesure

(22) Opus cit. Broderick, p. 218.

de la compensation, puisque l'excès d'acide se trouvera dans la salive sous forme de CO_2 pour y abaisser le pH. Le pH monte de 6.6 à 7.00 par l'élimination de l'acide carbonique.

D'un autre côté, si la première épreuve donne un pH de 7.0 (neutre), et la seconde, un pH de 7.4 (alcalin), les conditions sont totalement changées. L'excès d'alcali est compensé dans le sang par la rétention du CO_2 . Conséquemment, la seconde épreuve donne la force de la solution tampon, et la première: la mesure de la compensation.

On constatera par là qu'il est inutile de faire l'épreuve du pH de la salive par une seule vérification prise à l'occasion, sans tenir compte des multiples facteurs qui compliquent ce problème.

Nous savons que l'acidose peut se produire par un excès d'acide et aussi par une trop faible assimilation d'alcali. La salive, dans le premier cas, cédera, si on la laisse reposer une dizaine de minutes, une bonne quantité de CO_2 et le pH augmentera; dans le second cas, il n'y aura pas de changement. Dans le premier cas, la salive, débarrassée de tout le CO_2 qu'elle contenait, donnera un pH plus élevé et possiblement alcalin. Dans le second cas, la salive ne contenant pas ou presque pas de CO_2 , sera souvent alcaline. La réaction pourra être alcaline dans ces deux cas d'acidose. D'un autre côté, lorsqu'il y a alcalose, que ce soit pour diminution de formation d'acides ou pour une trop forte assimilation d'alcalis, le CO_2 sera retenu dans le sang pour neutraliser l'excès d'alcalis, et alors ce sera la seconde épreuve qui deviendra la plus importante.

Ainsi, la première épreuve est la plus importante dans un cas d'acidose. Dans un cas d'alcalose, c'est la seconde qui devient la plus importante. C'est ce qui explique que des salives qui ne semblent pas acides, en ne tenant compte que de la seconde épreuve, accompagnent des caries; alors que d'autres peu alcalines et même acides, si l'on n'observe que la première épreuve, accompagnent la pyorrhée (23).

Pour Broderick, la salive des bouches où prédomine la carie, est acide. Ces personnes sujettes à la carie, ont un système végétatif principalement dominé par le sympathique, tandis que les personnes atteintes de pyorrhée ont un système végétatif dominé par le para-sympathique.

Il serait trop long d'élaborer ici toute la théorie de McDonagh et de Broderick sur l'importance de l'état normal des particules de protéine en suspension colloïdale dans le plasma sanguin.

D'après McDonagh, les sujets où prédomine le sympathique, tendent vers l'acidose et leurs colloïdes sont déshydratés. Ils sont des candidats à la carie dentaire. Tandis que les personnes où domine le para-sympathique, tendent vers l'alcalose, et leurs colloïdes sont hydratés. Ces personnes sont des candidats à la pyorrhée.

HYPER . . . ET HYPOTENSION

L'hypertension artérielle indiquerait la prédominance du sympathique, alors que l'hypotension dénoterait la prédominance du para-sympathique. Cette théorie de McDonagh se prouve par l'examen direct du sang, le temps de sédimentation des particules de protéines, leur agglutination, leur hydratation ou deshydratation au moyen de l'ultra-microscope. Cette théorie se démontre aussi par l'examen ophtalmoscopique de la rétine.

Comment Prévenir La Carie Dentaire

Pour prévenir la carie, il faut, en plus des soins hygiéniques de la bouche, lutter contre l'acidose accidentelle et l'acidose constitutionnelle de l'organisme. L'accidentelle peut être due à une suralimentation ou à une alimentation mal balancée dans laquelle

(23) Opus cit. Broderick, p. 300.

prédominant trop fortement les protéines et les hydrocarbonés. Elle peut être due au surménage intellectuel ou physique. Elle peut être attribuable à la stase intestinale.

L'acidose constitutionnelle provient de la prédominance du sympathique sur le para-sympathique. Elle peut être causée par une suractivité des glandes surrénales, thyroïdes ou parathyroïdes; par une mauvaise ventilation pulmonaire qui n'émet pas tout le CO_2 nécessaire pour hausser le pH; par un centre respiratoire qui n'aurait pas la sensibilité normale à l'influence du CO_2 . Ici, le choix des correctifs appartient au spécialiste.

LA CORRECTION DE L'ACIDOSE ACCIDENTELLE

La nourriture doit être prise en quantité suffisante pour satisfaire la demande de l'organisme et pas davantage. L'ingestion des aliments doit équilibrer la dépense d'énergie et la réparation des tissus chez l'adulte. Durant la croissance, l'alimentation doit, en plus, suffire aux appels de la croissance. L'enfant glouton a toujours plus de carie que l'enfant satisfait d'une nourriture frugale. La suralimentation, nous l'avons vu, par oxydation incomplète des aliments, donne de l'acidose. Il est remarquable, chez nous, de constater l'amélioration des dents chez les enfants dans nos orphelinats. Repas réguliers et frugaux, aucun surménage aux jeux, coucher à des heures fixes et heures de repos rationnelles, vie dans une atmosphère de calme et de sérénité. Vous avez là un grand secret pour l'obtention d'une denture saine.

L'enfant ou le jeune homme qui épuise ses forces aux jeux, après de longues heures de classes dans une atmosphère chargée de CO_2 , accumule beaucoup d'acides dans son organisme. A moins qu'il ne prenne une nourriture alcalinisante, tels des légumes et des fruits, il souffrira de caries nombreuses.

Le bain chaud, tous les soirs, offre une excellente mesure hygiénique, car il alcalinise merveilleusement l'organisme et plonge l'enfant comme l'adulte dans un sommeil réparateur.

EROSION

Les jus de fruits pris le matin, tels le jus d'orange ou de pamplemousse (grape-fruit), doivent être suivis d'un rince-bouche bicarbonaté, afin de neutraliser immédiatement les acides citrique et malique du fruit qui attaquent directement l'émail de la dent à son point le plus mince, c'est-à-dire au collet des dents. L'érosion est bien souvent due à ce manque de précaution chez les habitués aux jus de fruits.

La pomme, fruit excellent pour la santé, ravage nombre de bouches chez nous, tous les automnes, parce que les enfants en mangent à toute heure du jour et parfois même au coucher. Or, voici un aliment alcaligène qui, cependant, par la présence des acides qu'il laisse au passage dans la bouche, abîme terriblement les dents. Le moyen de remédier à ce grave inconvénient, je le répète, est d'utiliser comme rince-bouche, immédiatement après avoir mangé des fruits acides, un peu d'eau bicarbonatée: une demi-cuillerée à thé dans un quart de verre d'eau, comme rince-bouche. Ainsi, on obtient les bienfaits des fruits tout en éliminant un inconvénient sérieux.

Il faut se rappeler que les protéines et les hydrates de carbone donnent un produit de combustion acide. Comme ils entrent dans le menu de tous les repas, il faut toujours leur adjoindre des légumes et des fruits, afin de contrebalancer leurs effets acidifiants.

Les céréales et particulièrement le gruau (oatmeal) semblent favoriser la carie. Ils peuvent être remplacés avantageusement par la banane mangée avec du blé filanté (Shredded Wheat). La banane est un des rares fruits qui contiennent toutes les vitamines moins la vitamine D. Le Créateur en avait fait une nourriture tropicale, il n'y avait pas lieu d'y ajouter la vitamine D que le soleil remplace abondamment dans ces régions. La banane contient plus de cellulose que les céréales et facilite mieux que ces derniers, l'élimination des excréments. Il convient de ne pas oublier que la nourriture doit faciliter le travail des émonctoires, tout en fournissant à l'organisme le combustible nécessaire et les matériaux de construction et de réparation. L'ingestion

d'aliments bien balancés ne saurait tenir une personne en santé, si cette dernière néglige de voir à l'élimination quotidienne des résidus. La présence de beaucoup de cellulose dans le tube digestif facilite les contractions peristaltiques de l'intestin.

SELS NUTRITIFS

Pour augmenter la réserve alcaline de l'organisme humain, Broderick a conseillé, dans son avant-dernière édition de "Dental Medicine", d'utiliser le bicarbonate de soude. Dans les cas d'acidose accidentelle, comme à la suite ou au cours d'une maladie, le bicarbonate de soude est tout indiqué. On l'a vu, dans les cas graves d'acidose, le patient peut prendre jusqu'à 3,000 grs. de ce sel de sodium.

Dans sa dernière édition, Broderick préfère au bicarbonate de sodium, lorsqu'il s'agit d'un traitement de toute une année, les sels nutritifs du Dr Eric Pritchard. Ces sels sont préparés par la maison Parke, Davis & Co. Ils sont en pastilles de 15 grs. chacune. *Les adultes* doivent en prendre deux, le matin avant le déjeuner. Il faut les broyer au moyen d'un pilon quelconque et les prendre avec tout un verre d'eau. *Pour les enfants*, on doit diminuer la dose.

Le verre d'eau joue, ici, double rôle. Il sert de véhicule pour les sels et lave les reins. Comme la réserve alcaline est longue à constituer, le Dr Broderick conseille de suivre ce traitement avec les sels nutritifs, au moins durant une année. Il préfère ces sels nutritifs au bicarbonate de sodium, parce qu'il redoute les effets que peuvent avoir à la longue les sels de sodium sur l'assimilation du calcium. En effet, nous avons vu qu'un excès de sodium, de potassium ou de magnésium, diminuait le calcium dans le sang, parce que le calcium s'élimine alors par le rein. C'est cet inconvénient que veut éviter le Dr Broderick, en recommandant ces sels. N'oublions pas toutefois que Farquharson, Salters, Tebbets & Aub rapportaient qu'une quantité excessive de bicarbonate de sodium ou de citrate de soude n'avait aucun effet important sur l'équilibre phospho-calcique.

Les sels nutritifs de Pritchard contiennent tous les sels que l'on trouve dans le sang et dans la même proportion approximative. Ils ne seront pas nécessairement assimilés selon les mêmes proportions mais contribueront à accroître les moyens de défense contre l'acidose.

ALIMENTATION ET MEDICATION CALCIQUE

La carie n'est pas simplement due à une déficience de calcium. Cependant, étant donné la complexité du problème, il est sage de voir à ce que chaque enfant et chaque personne ingèrent, chaque jour, une quantité suffisante de calcium:

La quantité de calcium à ingérer, chaque jour:

1 à 5 ans.....	1.7 gm. de calcium par jour.
5 à 12 ans.....	1.5 gm. de calcium par jour.
12 à l'âge adulte.....	1.2 gm. de calcium par jour.

Des chiffres à se rappeler pour établir un régime:

"Une chopine de lait contient 0.52 gm. de calcium. Une portion ordinaire de fromage: 0.20 gm. de calcium. Le reste de l'alimentation mixte pour l'enfant et l'adulte contient environ 0.30 gm. de calcium."

Pendant les années de croissance, d'après les chiffres ci-dessus, un enfant devrait boire une pinte (a quart) de lait par jour, c'est-à-dire quatre verres. Le lait de vache, selon certains auteurs, contenant trop de gras, devrait être partiellement ou complètement écrémé, afin d'éviter l'acidose par absorption d'une trop forte quantité de corps gras. Les corps gras jouent cependant un rôle important dans l'assimilation des sels de chaux et de la carotène.

D'autres ne recommandent pas le lait comme breuvage. Nouvelle contradiction. Il est, certes, regrettable que des raisons d'hygiène nous contraignent d'adopter le lait pasteurisé de préférence au lait naturel. Quand on permettra au cultivateur de retirer un prix raisonnable pour ses produits, il y aura peut-être alors possibilité d'exiger de

lui des mesures d'hygiène qui rendraient le lait naturel indemne de toute contamination et, par conséquent, supérieur au lait pasteurisé. Ce progrès semble encore bien loin de nous.

A défaut de lait, il est prudent de recourir à une médication calcique.

Le meilleur sel de calcium est le *gluconate de calcium*. Cantarow (145) prétend qu'à la dose ordinaire, il est futile de prescrire du calcium. Il préconise du *gluconate de Ca* à

60 grains.....3 à 4 fois par jour;
et le lactate de calcium:

20 à 40 grains.....3 à 4 fois par jour; pour adultes.

Pour les enfants, il réduit ces doses en proportion du poids de l'enfant.

LE MEILLEUR TEMPS POUR ADMINISTRER UNE MEDICATION CALCIQUE

Comme dans une solution alcaline, le calcium, en présence des ions de phosphate, forme un sel insoluble, une phosphate tricalcique: $\text{Ca}^3 (\text{Po}^4)^2$, qui ne peut être assimilé, le meilleur temps pour la médication calcique serait quatre heures après les repas ou une demi-heure avant les repas, moment où l'alcalinité du petit intestin est moins marquée. Il faut prendre le sel de calcium avec de l'eau.

Le gluconate en injection hypodermique 10 à 20 cc. d'une solution à 10%.

L'INSULINE

McDonagh, avons-nous vu, prétend que les candidats à la carie dentaire sont sous l'influence marquée du sympathique et que lorsque cette partie du système nerveux autonome domine, les particules de protéines en suspension colloïdales dans le plasma sanguin sont déshydratées. Alors le remède à cette anomalie, à cette dyscrasie, serait un médicament qui aurait la propriété d'hydrater ces particules.

Broderick s'est servi de l'insuline comme médicament hydrateur. Il a injecté, chaque jour, de faibles quantités d'insuline à des enfants chez lesquels il y avait déshydratation des protéines, sans toutefois aucun signe de diabète. Il a commencé par de faibles doses, pour augmenter graduellement jusqu'à 8 à 10 unités par jour. Immédiatement, la réaction de la salive qui était, dans certains cas, à un pH 6.2 avant le traitement, est montée au pH 8.4.

En quinze jours ou trois semaines, les caries dentaires, chez ces enfants, étaient arrêtées et les signes d'hyper-calcification de la dentine apparaissaient manifestement.

Boyd & Drain ont constaté que beaucoup de caries cessaient d'évoluer chez les enfants diabétiques sous traitement à l'insuline. Après six mois de traitement, la carie avait complètement cessé chez ces enfants et des calculs s'étaient déposés au collet de leurs dents.

L'insuline est donc un médicament puissant contre la carie. Malheureusement, il est impraticable de donner des injections quotidiennes aux myriades d'enfants souffrant de carie. De plus, c'est un médicament aux conséquences fâcheuses dans certains cas. Il ne saurait être manipulé par tous, sans présenter de graves inconvénients, tels l'œdème cérébral, le coma et la mort.

La formule de l'insuline est inconnue. L'Université de Toronto, si je ne m'abuse, détient les brevets pour sa fabrication.

On travaille présentement sur un produit synthétique dérivé de la guanidine et appelé: *Synthaline B*. Sans avoir l'effet magique de l'insuline sur la carie, on croit tenir un remède d'une grande utilité, vu qu'il pourra être pris par la bouche. (Broderick, p. 365.)

INSULINE —VS— B. ACIDOPHILE

Si l'insuline peut immuniser contre la carie dentaire et enrayer les caries commencées en facilitant la formation de dentine secondaire, comment peut-on attribuer toute la responsabilité de la carie au bacille acidophile?

Ne serait-ce pas l'alcalinité de la salive qui mettrait fin au processus de la carie. L'alcalinité de la salive, ici, ne provient-elle pas du fait qu'on a administré un médicament qui neutralise la prédominance du sympathique sur le para-sympathique? Un hydrateur contre un déshydrateur. L'insuline est un hydrateur et lorsque l'hydratation est poussée trop loin, le patient vient en état de choc par précipitation des particules hydratées dans les capillaires cérébraux. Or, un des meilleurs déshydrateurs connus c'est la glucose. Si on injecte de la glucose, on ramène le patient en déshydratant les particules surhydratées. McDonagh prétend que le choc qui suit l'administration de l'insuline, n'est pas dû à de l'hypoglycémie, car il peut obtenir le même résultat avec d'autres déshydrateurs qui n'ont rien de commun avec le métabolisme des hydro-carbones.

L'insuline est un médicament qui remplace l'insuffisance de l'hormone des Ilots de Langerhans du pancréas. Si ce remède enraie la carie, l'hormone dont il est un substitut, devrait jouer un rôle similaire. Nous avons vu le rôle de la thyroïde et de la parathyroïde et de la glande pituitaire antérieure sur le métabolisme du calcium. Si les glandes génitales et le pancréas influent aussi sur le métabolisme du calcium, il ne reste que les capsules surrénales à n'avoir aucun effet direct sur le calcium et encore elles sont sous la domination exclusive du sympathique. Le para-sympathique n'agit pas sur les glandes surrénales comme sur les autres.

Une fois de plus, il devient évident que le problème de la carie s'offre fort complexe aux chercheurs de la prévention de ce mal quasi universel.

LE FLUOR

Le fluor, au millionième, à 1 pour un million dans l'eau, réduit la carie dentaire de 50% et protège les dents antérieures dans une proportion de 90 à 95%. On sait qu'à plus de 2 parties de fluor pour un million d'eau, nous obtenons des dents mottlées (mottled teeth) et que même à 1 pour un million, nous pouvons avoir des dents légèrement mottlées chez les enfants de moins de douze ans. Ceci représente des inconvénients — malgré les moyens modernes de blanchir ces dents avec de l'éther et du peroxyde d'hydrogène à 100% de volume — parce que ces dents ont un émail défectueux et moins lustré.

Le Dr Basil G. Bibby rapporte, dans le numéro de février 1944, *Journal of the American Dental Association*, des expériences faites avec des applications sur les dents, d'une solution de fluorure de sodium au millième, trois fois par année. Il a constaté une réduction de la carie de 40% pour les molaires et 33% pour les bicuspidés, et 34% pour les incisives. (*Revue dentaire canadienne*, Avril 1944, p. 173.)

Arnold, Dean & Singleton rapportent, de leur côté, dans le numéro de juin 1944, *Journal of Dental Research*, des expériences faites sur des militaires. Ils se sont servis d'applications topiques avec une solution de fluorure de sodium à 5 pour mille, et d'acide acétique avec un pH 4.0, et de pulvérisation avec une solution à 1 pour mille de fluorure de sodium. Ce traitement a été donné, une fois dans un an, et sans aucun résultat pour la prévention de la carie. (*Dentistry — A Digest of Practice*. December 1944.)

La ville de Grand Rapids du Michigan vient de décider d'ajouter du fluorure de sodium au millionième dans l'eau de son aqueduc. Voici une expérience dont il faudra attendre les résultats avec beaucoup d'anxiété. (*Journal of the American Dental Association*, December 1944.)

Il est évident que le fluor dans l'eau de breuvage joue un rôle dans la prévention de la carie. Cependant, ce métalloïde semble, d'après Applebaum, (Gordon 403) diminuer la densité des dents.

Avant d'ajouter du fluor à notre eau de breuvage, attendons le résultat des expériences. Ce n'est pas tout de prévenir la carie. Il faut aussi s'assurer que la guérison d'un mal n'en produise pas en même temps un autre. Même les applications topiques de fluorure ne sont pas à recommander pour l'instant. Les recherches dans ce domaine permettront aux dentistes de s'éviter des inconvénients fâcheux pour eux

et pour les clients. Les expériences entreprises nous diront mieux dans quelles proportions et quelles conditions absolument inoffensives nous pourrions utiliser ce préventif de la carie, s'il ne faut pas l'écarter complètement à cause de certains inconvénients sérieux.

PHILIPPE HAMEL, 6 d'Aiguillon, Québec, P.Q.

La Faculté de Chirurgie Dentaire †

Le quinze septembre mil neuf cent vingt.

Neuf heures de la matinée. Coin St-Hubert et DeMontigny. Circulation incessante. Bruits des rues, qui se heurtent aux murs de pierre et à l'asphalte des trottoirs. Poussière de la ville, qui s'infiltre dans toutes les fissures.

L'Hôpital Dentaire Laval ouvre, pour l'année universitaire, son édifice de deux étages en briques jaunes. Une quarantaine de nouveaux étudiants, munis de parchemins de toutes sortes, débutent dans la profession de dentiste. Tous les cours et cliniques, sauf les leçons de chimie, leur seront donnés ici même. Et durant quatre ans, les étudiants de l'Ecole Dentaire pousseront là, isolés du centre universitaire de la rue St-Denis et privés du contact excellent des futurs médecins, avocats ou autres étudiants.

Vingt-quatre mille pieds de surface contiennent les salles de cours, les cliniques, les laboratoires, les bureaux du personnel, les salles d'étudiants, les locaux de dissection, les salles d'attente pour les patients. L'outillage, l'installation, tout est vieux, mais convenable.

Le programme d'études ne répond pas entièrement aux exigences des universités américaines. Les leçons d'anatomie, de physiologie, d'histologie, d'embryologie, — toutes les matières de base — sont enseignées à l'Ecole par des médecins praticiens, qui consacrent une partie de leur temps à l'enseignement. Les cours manquent du véritable climat scientifique. On s'occupe d'abord de former de bons praticiens, — en termes dentaires, — des dentistes habiles de procédés mécaniques et de tours de mains.

On trouve les services de dentisterie opératoire, de chirurgie et d'anesthésie, de prothèse, de couronnes et ponts, d'orthodontie, de radiographie. Quelques départements seront ajoutés plus tard. Pour le moment, l'espace est limité et la science d'aujourd'hui se contente de ces services essentiels.

Les patients du dispensaire forment une clientèle nombreuse et assidue. L'élève ne fait pas d'examen clinique et, par le fait même ne pose aucun diagnostic. Les radiographies sont prises dans des cas particuliers. On ne garde pas de chaque patient un dossier détaillé.

Le travail de l'élève varie selon les heures; l'étudiant passe d'une clinique à un cours, d'un cours à une démonstration.

* * * *

Le quinze septembre mil neuf cent quarante-cinq.

Huit heures et demie de la matinée. Pente nord-ouest du Mont-Royal. Calme de l'élévation au-dessus des rues de Montréal. Lumière resplendissante, on s'est rapproché du soleil. Grand air venant des Laurentides, capté à son passage sur la montagne.

La Faculté de Chirurgie Dentaire de l'Université de Montréal, partie intégrante de cet amoncellement gigantesque de lignes droites, symboliques, commence une nouvelle période scolaire. Ses nouveaux étudiants, tous «bacheliers des arts», ont été choisis parmi une centaine de candidats. Des tests d'orientation professionnelle les ont dirigés vers la chirurgie dentaire.

† L'ACTION UNIVERSITAIRE, Vol. XI., No. 10, Juin 1945.

Les élèves prennent possession de salles aménagées en salles de cours. Les laboratoires sont vastes, éclairés, ventilés; les amphithéâtres, construits selon les données modernes d'acoustique et de démonstration. Une centrale de stérilisation, d'où rayonne tout le matériel nécessaire aux départements, se révèle d'une utilité incontestable. L'outillage moderne facilite le travail et le rend plus agréable.

Quarante-cinq mille pieds de superficie suffisent à tous les services d'une faculté de chirurgie dentaire idéale: diagnostic, radiographie, chirurgie et anesthésie, orthodontie, dentisterie opératoire, couronnes et ponts, périodontie, pédodontie, prothèse.

Le programme d'études des premières années est élaboré en vue de munir les futurs dentistes d'une solide formation de sciences de base. En bonnes voisines, la Faculté des Sciences et la Faculté de Médecine donnent à nos étudiants, en compagnie de leurs propres élèves, les leçons théoriques et pratiques de biologie, de chimie minérale, organique et physiologique, d'anatomie générale (dissection), de physiologie, de bactériologie, d'histologie, d'embryologie, et d'anatomie pathologique. L'Institut de Diététique et l'Institut de Microbiologie reçoivent aussi les élèves pour des séries de cours spécialisés. Toutes ces matières sont enseignées par des professeurs de carrière. Voilà l'avantage d'habiter sous le même toit. Les étudiants sont tous confrères et membres de la grande famille de l'Université de Montréal.

Les élèves de troisième et quatrième années traitent les patients du dispensaire et appliquent ainsi les principes acquis pendant les premières années de leurs cours. Les leçons théoriques deviennent des démonstrations cliniques. Ces «seniors» et «juniors» seront assemblés par groupe d'une dizaine et assignés, pour environ un mois, à un service en particulier. Quelques-uns seront dirigés vers la prothèse, d'autres vers la dentisterie opératoire. Ainsi, par rotation, les élèves finissants, et ceux de troisième, divisés en petits comités, feront, tour à tour, un stage dans les différents services. Ces séjours, passés exclusivement dans une spécialité de la chirurgie dentaire, permettent aux stagiaires de se familiariser davantage avec une matière d'enseignement. L'étudiant bénéficie d'une formation presque individuelle, car le démonstrateur, n'ayant sous sa surveillance qu'une dizaine d'élèves, leur porte une attention toute particulière. En plus, ce système permet à l'étudiant-praticien de traiter un plus grand nombre de patients de d'observer l'évolution des troubles dentaires, avec plus de précision et d'intérêt. Les patients sont dirigés vers les différentes sections par le service de Diagnostic, où on a examiné à fond l'état buccal du malade, en rapport avec son état général. Cette étude fouillée des tissus mous et durs de la bouche est facilitée par une radiographie complète des dents, obligatoire pour tous les patients.

Le programme d'études actuel est le résultat d'enquêtes conduites sur place dans les universités de nos voisins du sud, qui partagent l'honneur de posséder les meilleures écoles dentaires. C'est le compendium des grandes facultés dentaires de Columbia University (New-York), Ann Arbor (Michigan), Northwestern (Chicago), et autres.

Nos dirigeants de la Faculté ont adapté à notre installation matérielle et à notre génie particulier la faculté de chirurgie dentaire-type, préconisée par l'Association of Dental Schools of America, sous l'égide de l'American Dental Association.

Nous puisons chez les Américains les idées d'organisation matérielle et de perfectionnement des études, la science dentaire, étant presque exclusivement une création américaine. Il ne faut pas oublier que la première école dentaire du monde fut fondée à Baltimore, en 1840. Depuis lors, le sens pratique américain, aidé de la philanthropie légendaire de nos voisins, a développé à un niveau inégalé ailleurs, la science et l'art de la chirurgie dentaire.

* * * *

Depuis vingt-cinq ans, la Faculté de Chirurgie Dentaire de l'Université de Montréal a pris, avec le temps, une jeunesse et une vigueur nouvelles. Dans son évolution vers un enseignement plus scientifique, elle prépare des praticiens plus con-

scients de leur rôle dans le maintien de la santé de notre population. Elle les oriente, selon les tendances modernes, vers la prévention des maladies dentaires et des ravages, qu'elles ont produits dans notre province.

La formation des dentistes canadiens-français, en ce vingt-cinquième anniversaire de l'autonomie de notre Université, égale celle des autres dentistes du monde. La reconnaissance officielle du Board of Education of the State of New-York, en janvier dernier, consacre la valeur de son enseignement. Cette organisme, après enquête menée ici même, décrète que notre faculté répond à ses exigences sévères et rigides.

La Faculté de Chirurgie Dentaire améliore constamment son enseignement, surtout depuis son installation à la montagne. Des projets nombreux surgissent dans l'esprit des membres du Conseil. Ils verront avec bonheur l'installation de l'Hôpital universitaire. Les étudiants trouveront là, chez les malades, la matière nécessaire à une formation clinique complète.

Un service de recherches dentaires est en voie d'organisation. Nous pourrions bientôt collaborer avec les grands centres de recherches américains, pour l'élucidation d'une multitude de problèmes qui ne peuvent être résolus que par une série de travaux faits en commun. Notre bibliothèque spécialisée de sciences dentaires se complète de jour en jour. Dans quelques années, elle formera un centre de documentation intéressant pour toute la profession.

On songe aussi à la formation du personnel enseignant pour l'avenir. C'est le désir le plus cher des chefs, de choisir, chaque année, quelques finissants bien doués et de les envoyer se perfectionner dans quelques grandes universités américaines. A leur retour, leur collaboration au professorat serait précieuse. En 1944, quatorze membres du personnel sont allés faire un stage d'études spécialisées à l'étranger et présentement, deux d'entre eux sont à se former aux Etats-Unis.

Ces projets, et bien d'autres qui naîtront en temps et lieu, requièrent pour leur réalisation, la bonne volonté de tous les intéressés et l'appui financier d'individus ou de sociétés philanthropiques.

La Faculté de Chirurgie Dentaire a bien rempli sa besogne au sein de la grande famille de l'Université de Montréal. Elle respire un air de progrès et bat la marche avec ceux qui vont de l'avant.

Cours de Perfectionnement

Nos lecteurs n'oublieront sûrement pas les cours de perfectionnement que l'Université est à préparer pour le mois d'octobre.

Une erreur de mise en pages a fait publier en août, un article du docteur de Montigny qui aurait dû paraître dans ce numéro-ci. Ceux que les cours intéressent feraient bien de relire cet article tout d'actualité. Les officiers de l'armée qui doivent reprendre la pratique privée seront probablement les plus intéressés. Aussi leur est-il fortement conseillé de relire le numéro d'août.



Etching by Dr. E. B. Sisley, Toronto.

"THE FISH TUG" AT PORT MAITLAND, ONTARIO



SEEING IS BELIEVING

"I'd rather see a sermon than hear one, any day,
I'd rather one would walk with me than merely show the way;
The eye's a better pupil and more willing than the ear;
Fine counsel is confusing, but example's always clear.
The best of all the preachers are the men who live their creeds,
For to see good put in action is what everybody needs.
One good man teaches many, men believe what they behold,
One deed of kindness noticed is worth forty that are told.
Who stands with men of honour learns to hold his honour dear,
For right living speaks a language which to everyone is clear.
Though an able speaker charms me with his eloquence, I say,
I'd rather see a sermon than hear one, any day."



THE HONOURABLE GASPARD FAUTEUX, M.P., D.D.S., I.D.S.
Montreal, Quebec.

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Speaker of the House of Commons, Ottawa.

Past member of the Board of Governors, College of Dental
Surgeons, Province of Quebec.

Graduated in Dentistry from Laval University in 1921.

Member of Canadian Army Dental Corps during
World War I.

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YOUR TEETH—YOUR HEALTH†

by R. G. ELLIS, B.D.S. (Adel.) D.D.S., M.Sc. (Dent)

Professor of Operative Dentistry, University of Toronto.

THE members of the human family have been conscious of their teeth for many centuries. This consciousness is increasing with the passage of time. My hope is that tonight I might be instrumental in bringing to you a glimpse of the life cycle of a tooth and the struggle that is being waged between nature's efforts to maintain our teeth and oral structures as a well-balanced functioning biological unit and the forces of destruction which accompany our modern highly civilized form of life.

The extreme degree of refinement of our foods reduces the need for function of teeth in mastication. Furthermore, the high-speed nervous state which we are prone to adopt in life, changes the general systemic conditions and indirectly, the local environment in which our teeth are to be maintained in a state of normal function and preservation.

YOU—AND YOUR TEETH

"At birth¹ your baby gums and jaws are crowded with potential teeth, for at birth there is considerable development of the crowns of the 20 deciduous*

teeth and the jaws also contain the germs of 32 permanent* teeth." The crowns of the 20 foundation teeth which are already forming at birth² were initiated many weeks before you were born; the foundations for these foundation teeth were dependent upon the diet and health of your mother which must be well cared for by your family physician. Another factor which influences the formation of these teeth at this stage is the hereditary pattern which is imparted to you by your mother. We have no control over this factor.

The foundation teeth begin to erupt six to nine months after birth³ and the root formation of these teeth is complete at approximately three years of age⁴. At six, the first tooth of the second dentition appears behind the last foundation tooth⁵. It erupts and takes its rightful place, often unheralded and unsung. Perhaps, this is an unfortunate turn of events and if a mere mortal may be so bold as to say it, Nature's one error in the amazing program of the development and arrangement of the teeth; as one lad of nine said to me recently, when I pointed out

†A lecture delivered in Convocation Hall, University of Toronto, on March 10, 1945, under the auspices of the Royal Canadian Institute.

This is a dental health lecture suggested for use before Adult Education Groups; Home and School Clubs; High School Groups; Red Cross Nurses and others.

Foot notes describe the slide used in illustration of paragraph in text.

*The deciduous teeth, or baby teeth are hereafter referred to as "foundation teeth."

The permanent teeth, are hereafter referred to as "teeth of the second dentition".

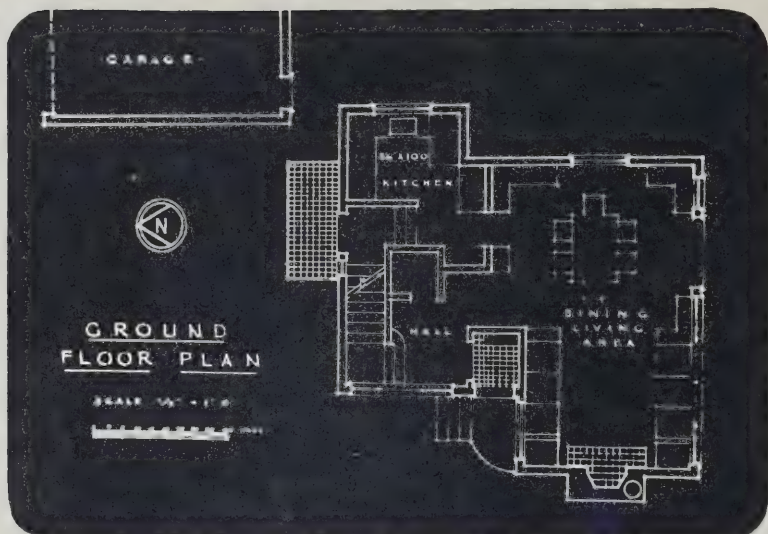


Fig. 1
Blueprint of a House

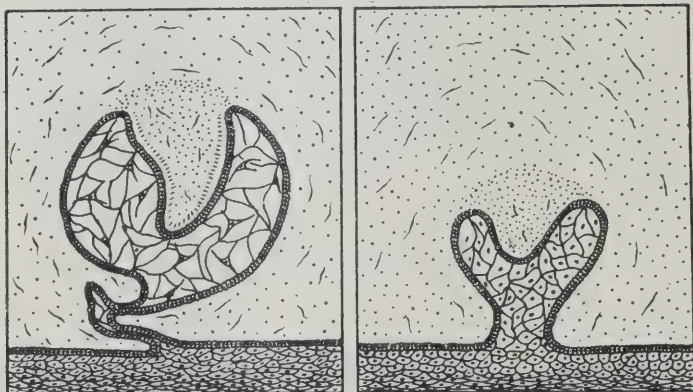


Fig. 2
Proliferation and Histodifferentiation (Schour)

a badly broken down first molar of the second dentition, "I didn't lose any baby tooth back there so you must be wrong, that's only a baby tooth." This tragedy occurs too often⁴.

DEVELOPMENT

Let us turn for a few minutes and delve into the fascinating story of the

development of a tooth. For purposes of comparison, we are going to consider some of the stages in the construction of a house with similar stages in the development of a tooth.

The blueprint for the house represents the plan to be followed, (Fig. 1). The specifications which accompany the blueprint determine the types of

1. Slide-Baby soon after birth.
2. Slide-Diagram of teeth at birth (Schour).
3. Slide-Child, age two.

4. Slide-Diagram of teeth at three (Schour).
5. Slide-Diagram of teeth at six (Schour).
6. Slide-Child's mouth at seven.

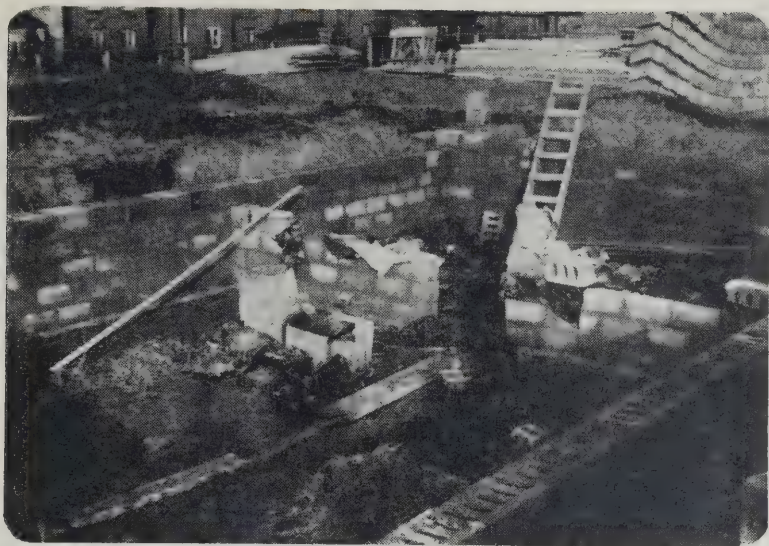


Fig. 3
Foundation of a House

materials to be used. The contract is let and the builders and carpenters and other trades are arranged for. The tooth develops according to similar detailed arrangements. We see proliferation (of the lining of the baby mouth (the epithelium), (Fig. 2), then the shaping of that epithelial proliferation) to correspond with the shape and size of the crown to be formed. This is the blueprint stage. The specifications call for the best materials (dentine, enamel), which can be obtained. The builders and carpenters line up for their task in the stage known as Histodifferentiation. The line on which they form is known as the dento-enamel line, and just as the exact location for the foundation for the house must be pegged out before one shovelful of concrete is laid down, so the dento-enamel line must be determined before enamel or dentine may be deposited by the ameloblasts (enamel) and odontoblasts (dentine).

The foundations may now be laid when these details have been cared for (Fig. 3). In the case of the tooth, the

enamel forming cells and the dentine forming cells, if supplied with adequate materials, will deposit a predetermined amount of enamel and dentine each day (Fig. 4). If the calcium, phosphorous and vitamin supply is inadequate, then the type of structure laid down will be interfered with.

When the foundations are complete, the builders proceed with the walls and superstructure which rise from ground level and erupt sky-wards into full view⁷. So with the tooth. It becomes calcified and erupts into view⁸.

In the final stages when the exterior of the building is completed, (Fig. 5), the interior decorators move in to make the house comfortable for the future occupants. With the tooth, the interior decorating must be taken care of also. The root development goes on to completion and the internal space is reduced in size by the odontoblasts building onto the walls both for the purpose of insulation and protection (Fig. 6). This is analogous with the insulation and finishing of the walls of the house.

If we compare the length of time

7. Slide-Walls of the house.

8. Slide-Partial eruption (Schour).

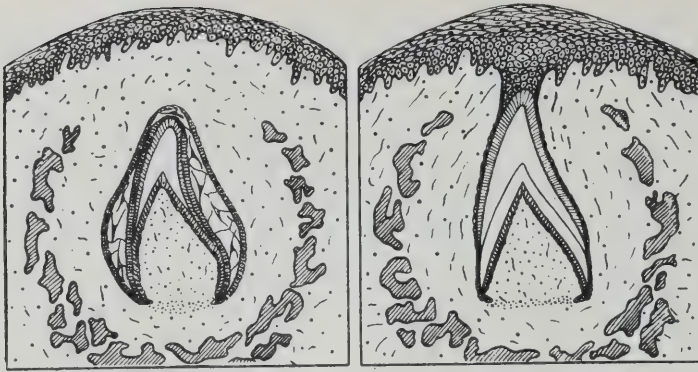


Fig. 4

Apposition and Calcification (Schour)

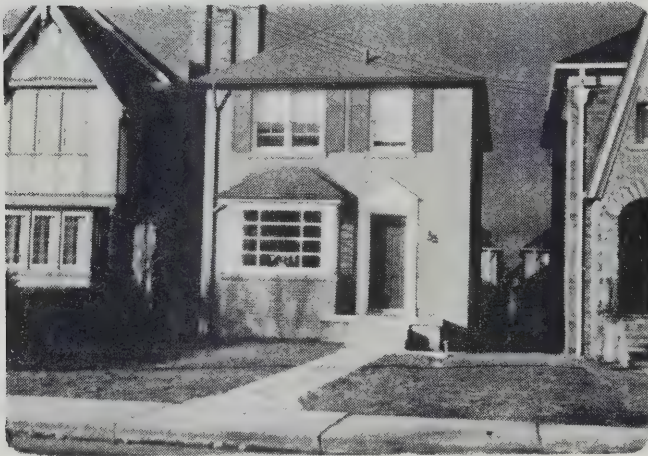


Fig. 5

Complete Exterior of a House

which elapses between the blueprint stage and the time of occupancy of the house, with the stage of proliferation through to completion of the tooth, it will be found that the difference is enormous; perhaps in the ratio of one year to ten years. During the ten year interval which elapses in the case of the tooth, the materials used in the development of the tooth will be subject to changes controlled by the health of the patient and the diet over that ten year interval; therefore it is of considerable interest that the tooth

structure laid down is so uniform. But occasionally, disturbances do occur and they will be reflected in the developing tooth. Let us consider a few of the possibilities which occur during the four stages in the development of the tooth.

DISTURBANCES IN DEVELOPMENT

1. *At the blueprint stage.*

In the case of the house, if the blueprints were destroyed and not repeated, or were never drawn up, there would likely be no building. In the case of



Fig. 6

Complete Eruption and Root Formation

the tooth, if there were no proliferation of the epithelium there would be no tooth. The result of this anomaly is congenital absence of the tooth. It is possible in one mouth to find the absence of a single tooth⁹ or even complete absence of all teeth¹⁰. The cause for this disturbance is as yet unknown, but heredity probably plays an important role.

2. At the foundation stage.

If the foundations for the house were constructed of weak materials, sooner or later, erosion of those foundations would take place. In the case of the tooth, if poor materials were used in the foundation stage, it is probable that the enamel of the tooth which is laid down at this stage would be eroded and pit marked resulting in a condition known as hypoplasia of the enamel, (Fig. 7). The exciting cause of this disturbance may be dietary, or some general systemic disturbance, particularly, when associated with fever. For example, measles, and other exanthematous fevers.

3. At the walls and superstructure stage.

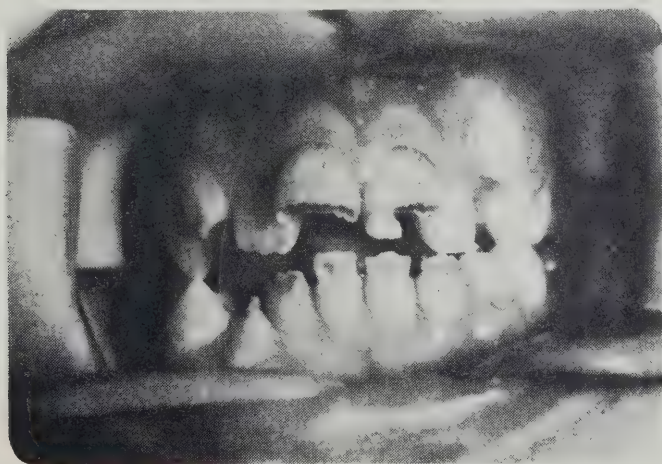


Fig. 7

Moderate Hypoplasia of Enamel

9. Slide—Congenital absence of a few teeth.

10. Slide—Congenital absence of many teeth.

If the walls of a house were constructed of weak materials or by slipshod methods, it is likely that they will quickly become weather-beaten and eroded. Defective deposition of the walls of the teeth may result in similar conditions¹¹. The cause again may be dietary, systemic and even based on some hereditary factor.

4. *At the interior decorating stage.*

A violent earthquake may destroy the continuity of the house at the interior decorating stage. A sudden accidental blow on the tooth¹² after it is erupted and during the stage when completion of the root and the interior of the tooth is taking place, may cause the nerve of the injured tooth to become non-vital¹³. As the result, the complete development of the root ceases, and the interior decorating ends abruptly.

These are but a few examples of the possibility of disturbances to the developing tooth at various stages. Such disturbances are common in the mouth of the modern individual, but they seldom occur in the mouths of primitive peoples. Such disturbances are dependent on your health.

ERUPTION OF TEETH

The amazing process of the development of the tooth is followed by an equally amazing process of eruption of the tooth into its rightful place in the mouth. Normal eruption is dependent upon a balance of numerous forces. These forces include the growth of bones, lip pressure, tongue pressure, cheek muscle pressure, endocrine balance, guidance of deciduous teeth, besides the force of eruption latent within each tooth¹⁴.

A disturbance of these forces will result in a disturbance of the time of the eruption of the tooth and the position which it will take in the mouth. For example, mouth breathing, lip bit-

ing, thumb sucking, endocrine disturbances, etc.¹⁵

The vital importance of the foundation tooth as the keeper of the allotted space for a tooth of the second dentition cannot be overemphasized. If these foundation teeth are lost prematurely, normal mastication of food is interfered with and this allotted space is lost, and crowding of the second teeth will result¹⁶.

MAINTENANCE OF NORMAL DIET

Two aspects of diet must be considered to have a considerable influence on the teeth. Firstly, a well-balanced diet, supplying the required minerals and vitamins is essential during the stages of development of the teeth and thereafter. The need for reinforcement of the diet with mineral or vitamin concentrates is strictly limited, and definitely less satisfactory than meeting the requirements through the natural sources¹⁷.

Secondly, the physical nature of the foods is equally important in the growth and development of teeth and the human jaws. The modern civilized diet of prepared and highly refined foods, which deprive the teeth of their much needed function, is bringing about an inevitable slow degeneration of the teeth and jaws¹⁸. It is reflected in the narrowing of the arches and the increasing degree to which the third molar is absent. Perhaps we may look ahead a few centuries when the third molar will be missing entirely, and the lateral incisor, which now, to an ever increasing degree, is congenitally missing, may also be considered an anomaly when it is present. These changes are necessary if the diminished size of the jaws is to house the teeth which develop.

The coarse fibrous food of the primitive Eskimo and Indian gives needed function for the growth of the jaws and provides ample room for well formed

11. Slide-Severe Hypoplasia of enamel.

12. Slide-Non-vital fractured tooth.

13. Slide-X-ray of non-vital tooth.

14. Slide-Forces of eruption.

15. Slide-Thumb sucker

16. Slide-Premature loss of foundation teeth.

17. Slide-Good foods.

18. Slide-Poor foods.

teeth.^{19 20} Not only have we eliminated coarse foods from our modern civilized diet, but where foods are used which might necessitate the functions of prehension and incision, the knife and fork have been introduced to meet the demands of etiquette, and the front teeth have been deprived of their rightful use. There is a deep social and health significance in the "Chicken in the rough" idea. If our teeth are to serve as they are intended, the slogan might well be extended to include, "Bovine on the T-Bone", even if it does mean a few greasy fingers. The front teeth were meant for function as well as beauty, but by depriving them of this function, they may well eventually lose their beauty.

ORAL HYGIENE

The natural methods of cleaning teeth are also dependent on tough fibrous foods. However, with the disappearance of tough fibrous foods, we are more and more dependent on the artificial substitute, namely, the tooth brush. The correct method of using the tooth brush is important because much damage can be occasioned to the teeth if the tooth brush is used as though we were scrubbing floors²¹.

STABILIZING FORCES

Normal muscles, tongue, cheek and lip forces are essential to the maintenance of normal teeth and arches. It would seem that the acquisition of habits results in serious disturbances in growth and development²².

GENERAL HEALTH

To maintain normal oral conditions, the general health must provide a favourable oral environment. Fundamental disturbances such as general fatigue, disturbances of the nervous system, of the basal metabolism, and nutritional disturbances, besides many

specific diseases, are reflected in the difficulty of maintaining the oral structures in normal health²³. Oral health is dependent on the general health and resistance of the host.

FUNCTIONS OF THE TEETH

1. Mastication.

The primary function of the teeth is that of prehension, incision, and mastication of food; and indirectly for the food to be held in the mouth long enough so that the first enzymes of the digestive process which are contained in the saliva can be thoroughly mixed in with the food bolus. What chance have you got to achieve these ends if a number of teeth are missing or if the teeth do not occlude properly? Too many of us are dental cripples very early in life as the result of the loss of teeth²⁴. If you were asked the question, "How old is your mouth?", the answer would probably be at least ten to twenty years older than your chronological age.

The end result of the improper preparation of the food for the stomach can only be, that the whole digestive tract is overloaded and your general health eventually is affected.

2. Speech.

The importance of the teeth in speech is obvious²⁵. The teeth aid in the formation of the sides of the box in which the sounds are formed. If teeth are missing or are badly misplaced in the arch, the sound box is defective and only by abnormal use of the lips and tongue, can this abnormality be compensated for, and the sounds be formed.

3. Aesthetics.

If we are to believe the stress placed by the advertisements for tooth pastes, the teeth are "A thing of beauty and a joy forever". Any anomaly which detracts from the beauty of the teeth may well cause a disturbance of the mental health of the host. For example, how

19. Slide—Comparison—Eskimo and civilized mouths.

20. Slide—Eskimo mouth after contact with civilization.

21. Slide—Tooth brush technique.

22. Slide—Thumb sucking.

23. Slide—Anaemia—effect on mouth.

24. Slide—Dental Cripple.

25. Slide—Speech formation.

could you face your friends with a smile if when you did so, you showed front teeth which were all jumbled up or badly decayed²⁶. Would you not attempt to hide the ugly appearance of your teeth and in doing so, be in danger of developing some inferiority complex or other mental aberration.

DENTAL DISEASES

In spite of our efforts to establish normal growth and development, normal eruption, and maintain the teeth and oral structures in a normal condition, according to the statistics, 98% of you in this hall tonight suffer from dental diseases. Too great a percentage of you are dental cripples, and as was stated previously, your mouth is anywhere from ten to twenty years older than your actual age.

The most common dental diseases of which you are victims are dental caries (decay), diseases of the supporting structures (gingivitis and pyorrhea, and malocclusion.

DENTAL CARIES (DECAY)

To have decayed teeth has been the unhappy experience of nearly every one of you²⁷. The primitive peoples in their native haunts, on the other hand, are practically immune. The aetiology of this disease has been wrestled with by research workers for generations and millions of dollars have been spent in the work. Great progress is being made, and one of the amazing results which would come from the actual control of this disease, would be that the dental profession would find itself without decayed teeth to take care of, and yet I believe I am correct in saying that there isn't a member of the dental profession who is not sincerely interested in seeing dental decay brought under control. I heard recently that in the dental faculty of one of the great universities in the United States that as the result of research work which has been in progress there for

a number of years, they have been successful in reducing dental decay by 90%. The results are so startling that the research worker responsible for this development does not believe his own results, and will not release them until further extensive clinical tests have been made.

There have been numerous theories enunciated from time to time concerning the aetiology of dental caries and the concept which is accepted almost universally is that it is a chemico-parasitic process. The enamel is first decalcified by lactic acid formed by the lacto bacillus acidophilus odontolyticus when it breaks down carbohydrate debris which collects about the teeth.

The enamel is built up of a number of columns or prisms which are set at right angles to the surface of the tooth²⁸. These prisms are united together by an interprismatic cementing substance which is much weaker than the prisms themselves. The dentine is made up of a series of tubules which might be compared with the tubes in a boiler²⁹. The significance of this architectural arrangement is important from the standpoint of the development of dental caries. When the enamel becomes decalcified, it is the interprismatic cementing substance which breaks down first and leaves the prisms unsupported which then are easily broken. The enamel may therefore be penetrated through a narrow opening and the dentine, which is much less resistant because it contains only 72% of minerals as compared with 96% in the enamel, and the carious process extends more rapidly in the dentine. The bacteria enter the dentinal tubes and crowd up these tubes which run toward the nerve in the tooth, breaking down the organic content by enzyme action and decalcifying the mineral content as well³⁰. The base of the carious area situated on the dentoenamel junction may therefore be

26. Slide—Jumbled teeth.

27. Slide—Decayed teeth.

28. Slide—Enamel prisms.

29. Slide—Dentine tubules.

much wider than the point of entrance of the carious process through the enamel and it is not uncommon to have a very large cavity in the tooth before it is ever suspected³¹. An x-ray will show this development much earlier than it can be found by simple inspection³².

DISEASES OF THE SUPPORTING STRUCTURES

Gingivitis—Pyorrhea

The most flagrant type of disease to soft tissue is inflammation of the gum margins called "gingivitis". There is usually a great deal of redness but it is of a superficial nature. The cause is commonly of local origin such as, irritation caused by the accumulation of calculus around the teeth. Mouth breathing is also a common cause³³. Besides the local factors, some general systemic disturbance, nutritional or otherwise, may cause gingivitis.

The more serious type of soft tissue disease is less alarming in appearance, more insidious in onset but much more deeply rooted. This condition is commonly known as pyorrhea³⁴. The gum tissues become stripped from the tooth surface and the bone margins disappear and a pocket develops between the tooth and the gum tissues. These pockets vary in depth and are usually lined by a mass of inflamed tissue capable of absorbing, or allowing entrance for bacteria to the blood stream.

The predisposing causes of the development of pyorrhea may be traumatogenic occlusion, systemic disease and nutritional deficiencies. Traumatogenic occlusion results from badly interdigitated teeth cusps. For example: in a piece of machinery, if one of two cog wheels which were supposed to be working in harmony with each other, had one long tooth, (Fig. 8), then each time that long tooth passed over the second wheel, the whole mechanism

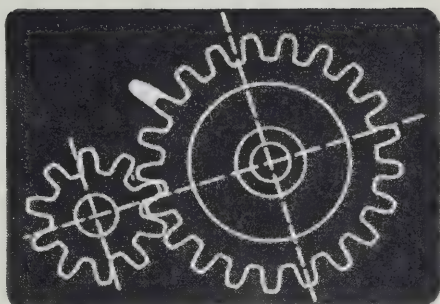


Fig. 8

Cog Wheel with long Tooth

would receive a severe jolt, and eventually the piece of machinery would be shaken to pieces. Where long cusped teeth are interlocking irregularly, then during the process of mastication it is possible for the long cusps to jolt the dental mechanism each time the chewing functions are undertaken. It is unlikely that traumatogenic occlusion could develop with the well worn teeth of the primitive people but in the modern individual with long cusped teeth showing little wear there are great possibilities for the development of traumatogenic occlusion, and hence this condition is one of the prominent predisposing factors³⁵.

As an exciting cause of pocket formation, there has been no specific organism proven to be the causative factor of the condition. Recently however, our research workers under the guidance of Dr. H. K. Box have considered the organism shown in the slide, a fungus-like growth, as being the possible specific causative factor in the development of the pocket³⁶. Much work has yet to be done on this new thought before it can be assigned definite clinical significance.

MALOCCLUSION

The prevalence of malocclusion among your children and mine, is

30. Slide—Tubules in cross section.

31. Slide—Cavity formation.

32. Slide—Bite-wing x-rays for cavities.

33. Slide—Mouth breather.

34. Slide—Pyorrhea.

35. Slide—Comparison, Primitive Eskimo and civilized man.

36. Slide—Fungus like growth.

alarming. Irregular teeth predispose the individual to increase in caries susceptibility, to traumatogenic occlusion, and other disturbances³⁷.

The causes of malocclusion which are recognized, are numerous. For example: Habits, such as lip biting, tongue sucking, finger sucking, endocrine disturbances and premature loss of foundation teeth.

The part which heredity plays in the development of malocclusion must also be recognized.

Whatever the nature of the cause may be in the development of malocclusion, the potential results are far reaching.

YOUR TEETH, YOUR HEALTH

Repeated reference has been made to the importance of your health during the growth, development, eruption, and maintenance of your teeth and oral structures. But the teeth must be considered as the cause as well as the effect.

Practically every ailment the human body is heir to has at one time or another been attributed to bad teeth. Focal infection and toxæmia arising from diseased teeth and the oral tissues might develop from periodontal pockets or from non-vital infected teeth. On the other hand many teeth have been sacrificed without benefit to the individual. It is impossible to pre-determine exactly when teeth are responsible for ill health and when they only contribute to it.^{38 39 40}

Let us consider the following analogy. The chemical formula shown is that of Niacin (Fig. 9). Niacin (one of the Vitamin B complex) is a valuable adjunct in the diet. If the Co. OH radical were changed to CH, the formula becomes that of Pyridine, which is a motor nerve and heart depressant. The result of that substitution changes the end result from something constructive to something destructive. So with the Health form-

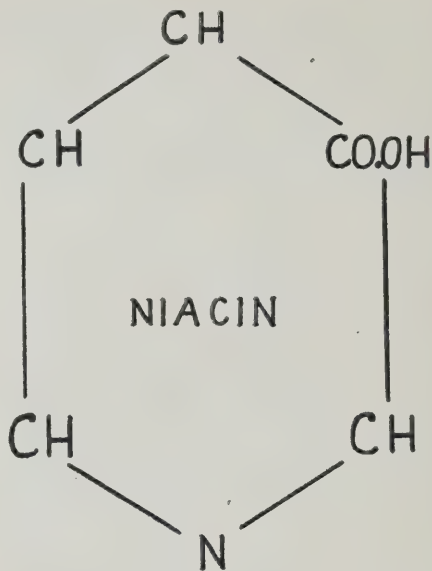


Fig. 9
Niacin Formula

ula suggested (Fig. 10). The various stages of development, eruption, maintenance of the teeth, etc., are dependent on the health and at the same time the health is dependent on the contribution good teeth can make. If one of these well integrated parts becomes distorted greatly then the process is no longer working in favour of a normal functioning biological unit. Health and good teeth are interdependent.

TREATMENT

What can we say about the treatment for dental diseases? Dental diseases seem to be inevitable. Like the darkey preacher, we are advised to "cooperate with the inevitable". Unfortunately, with dental treatment there is associated the idea of pain, and because of pain, fear. Cartoonists and irresponsible people have added coals to the fire. The great hope for dental treatment lies in the prevention and

37. Slide—Malocclusion—Before and after.
38. Slide—Tooth, non-vital, non-infected.

39. Slide—Tooth, non-vital, infected.
40. Slide—Pyorrhea.

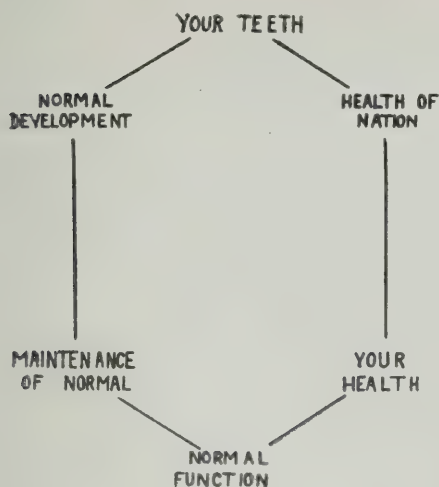


Fig. 10
Health Formula

control of dental diseases. What child today of three years of age, has not

had toxoid treatment for diphtheria, etc. It is accepted by most responsible parents as "a must" in the care of the child. The same attitude toward the care of the foundation teeth, would eliminate for the child unpleasant experiences associated with the treatment of advanced dental disease. An initial visit with the dentist at three and at intervals of six months thereafter is the practical expression of such a program.

What greater living memorial could the citizens of this city, nay the whole Dominion, contemplate to honour those Canadian heroes who are fighting and dying to make Canada free and safe for the generations to come, than to build centres wherein the pre-school child, of any race or creed, no matter what his circumstances, could receive the necessary dental preventive measures, analogous to the toxoid treatments.

(The writer wishes to acknowledge the suggestions made by his confrères and the ideas obtained from the dental literature, which have been of great assistance in the compilation of this material).

CHANGE OF ADDRESS

Notice of change of address should reach the Secretary's office before the first of the month in which the change is to take effect. Please furnish old as well as new address.

Members in the Military Services are requested to notify respecting change of address as quickly as possible so that the *Journal* will be received at new address.

In all cases, the former address should be given.

Address all communications to:

The Secretary,
Canadian Dental Association, 211 Huron Street, Toronto 5.

ANNOUNCEMENT

Joint C.D.A. and O.D.A. Meeting

The joint meeting of the Canadian Dental Association and the Ontario Dental Association will be held at the Royal York Hotel, Toronto, May 27-30, 1946.

THE INCIDENCE AND CAUSE OF DENTAL PAIN AT HIGH ALTITUDES

by C. B. Stewart, Wing Commander, R.C.A.F., and G. K. Macintosh, Captain, C.D.C.

AS REPORTED by Sognaes in his excellent review on Aviation Dentistry, problems in this field have not been extensively investigated. Only scattered notes and studies relating to this subject have appeared in the literature, most of them since 1935. Many of these reports have been based on only a small number of clinical cases and give little indication of the importance of the problems or the relative frequency of various aetiological factors. However, in 1944 Sognaes presented, in the same review,¹ data on the dental examination of a group of one thousand airmen. He also recorded the symptoms which developed during exposure to low pressure of those who showed pathological conditions of the teeth. Kennon and Osborne² reported the incidence of tooth pain at high altitude to be 1—3% but did not record the number of observations on which this percentage was based. They discussed the aetiology of toothache in 175 patients who developed pain during exposure to low pressure. Wiener³ also reported a study on 69 fliers who complained of toothache during low pressure tests.

The present report shows the incidence of dental pain in a group of more than 7,000 R.C.A.F. aircrew studied during 1942-43. It also indicates the relative frequency of various aetiological factors in a group of 65 men who developed toothache during tests in the low pressure chamber.

MATERIAL AND METHODS

In 1942-43 R.C.A.F. aircrew were given a number of tests in the low pressure chamber before proceeding overseas. Personnel examined were aircrew trainees between the ages of 18 and 35. They had been in the serv-

ice for periods varying from two months to more than one year and had received periodic dental examinations. Most of them had four simulated ascents in the low pressure chamber. The first "run" was to 25,000 feet for training in the use of oxygen equipment. This included several rapid descents from 5,000 feet, a ten minute demonstration of anoxia at 17,000 feet and an ascent to 25,000 feet. This was followed on succeeding days by two or three ascents to 35,000 feet for a period of two hours to determine the incidence of decompression sickness. In addition to observations concerning anoxia and decompression sickness, data were recorded on the incidence and severity of toothache.

Some 25,000 low pressure chamber "runs" were made by the group of more than 7,000 men included in this study. Dental investigations were carried out on those who reported symptoms, and treatment was instituted when required. Following treatment or in the absence of positive findings by the dental examiner, further low pressure chamber tests were made to determine whether pain recurred. The results are reported of the examination and treatment of 65 consecutive and unselected cases from those who experienced toothache while in the chamber.

OBSERVATIONS

Of the observed group of more than 7,000 men 1.6% reported toothache during one or more tests. The pain occurred on only 0.5% of the 25,000 exposures to low pressure. This lower incidence per "run" was due to the fact that the men were treated after an attack of pain, usually on their

TABLE I
ALTITUDE OF ONSET OF PAIN

Altitude	0 to 5,000	5,000 to 10,000	10,000 to 15,000	15,000 to 20,000	20,000 to 25,000	25,000 to 30,000	30,000 to 35,000	During Descent	Exact* Altitude Not Recorded
Number of Men	9	6	6	11	9	4	13	5	9

TABLE II
CAUSES OF TOOTHACHE ON LOW PRESSURE CHAMBER TESTS

	Causes	Number
1. RESTORATIONS (38)	(a) Without insulation.....	22
	(b) Thin insulation.....	2
	(c) Recent fillings.....	3
	(d) Involvement of pulp chamber.....	11
2. INFECTION OF ROOT CANAL (18):	(a) Without previous history.....	14
	(b) With previous symptoms.....	4
3. CARIES.....		4
4. RECESSION OF GUMS.....		2
5. NO CAUSE DETERMINED.....		1
6. MISCELLANEOUS.....		2

first test, and they did not experience discomfort on later exposures.

In more than half the cases the pain was so severe that the test had to be discontinued before the final altitude was reached or before the completion of the full test period. In other cases the pain was relatively mild and the low pressure chamber tests were not interrupted.

Clinical data have been analyzed on 65 men who developed toothache on 72 low pressure chamber tests. Table 1 shows the altitude at which the onset was reported.

There was no obvious tendency for pain to develop more frequently at any particular altitude although 90 per cent occurred during ascent.

Table II shows the aetiological factors which were considered responsible for the pain.

In 38 cases (58%) the pain was thought to be related to the presence of a filling in the effected tooth, the majority having a deep filling with little or no insulation, or one involving a pulp cavity. In 18 cases (27%)

an infection of the root canal was responsible.

Table 3 presents a summary of the history, clinical findings, treatment and result of the 65 cases in which toothache occurred.* One case is also reported of malformation of the first molars, checked to determine whether these teeth would be sensitive at high altitude.

I Restorations

(a) *Non-insulated Restorations*:— In 22 cases, pain occurred in a tooth which contained a deeply seated filling without insulation, 21 amalgam, one porcelain. These fillings had been inserted at least several months before the test. Two men gave a history of soreness in the effected tooth while flying during that period, and five others reported sensitivity to heat, cold and pressure for several weeks after the filling had been inserted. The remaining fifteen gave no history of symptoms while flying, but it is pointed out that the exposure in the

*Owing to publication difficulties only 15 of these cases are appearing in this paper.—Editor.

TABLE III

ANALYSIS OF CLINICAL DATA ON 65 CASES OF TOOTHACHE IN LOW PRESSURE CHAMBER

<i>Case No.</i>	<i>History</i>	<i>Clinical Findings</i>	<i>Treatment</i>	<i>Result</i>
1.	Severe pain, 1st test, 16,000 feet, lower left first molar. Three fillings within 1 year. Soreness to heat and cold.	Large amalgam filling, distal and occlusal surfaces.	Filling replaced with pulprotex-lined amalgam.	No pain next ascent.
2.	Severe pain, 2nd test, at 12,000 feet, upper right 1st bicuspid. Filled two months previously. Sensitive to heat and pressure since.	Large filling, thin cement base.	Thick pulprotex lining and amalgam.	Slight soreness following day at 35,000 feet. 2nd day—nil.
3.	Severe pain, 1st test, at 5,000 feet, upper left first molar.	Large amalgam filling with zinc and oil of cloves base. Pulp chamber not involved.	Filling removed, cavity phenolized. Zinc oxide filling.	Following day toothache at 18,000 feet. Tooth extracted.
4.	Severe pain, 1st test, at 35,000 feet upper left 1st molar. Filled one month previously.	Large mesio-occlusal amalgam deeply seated, no insulating base.	Temporary zinc oxide and oil of cloves filling.	No improvement. Tooth extracted.
5.	Soreness, 1st test, at 15,000 feet, upper right second bicuspid and 1st molar. Filled during previous two months. Sensitive to heat and cold, two weeks after filling.	Deeply seated amalgam fillings without base.	Pulprotex base, amalgam filling	No pain on following two tests at 35,000 feet.
6.	Severe pain, 1st and 2nd tests, at 25,000 feet, lower right 1st molar. Deep filling shown by x-ray.	Amalgam filling without insulation.	Zinc oxide and oil of cloves temporary filling replaced by amalgam with base after 1 day.	With temporary filling—mod. soreness at 25,000 feet. With amalgam very slight soreness on 2 tests at 35,000 feet.
7.	Slight pain, 1st test, at 17,000 feet, severe on 2nd test at 25,000 feet, 1st upper right bicuspid.	Large amalgam filling, pulp chamber almost involved.	Temporary pulprotex filling for 1st test, replaced by amalgam with pulprotex lining.	No pain with temporary filling or amalgam.
8.	Pain at 28,000 feet, 1st test.	Multiple amalgam fillings.	Replacement of fillings with insulated amalgam.	No pain on following two tests.
9.	Soreness in upper left lateral incisor at 35,000 feet, lasting one hour after descent.	Large porcelain filling on mesial surface, very close to pulp chamber.	Filling replaced with pulprotex temporary filling, later replaced by synthetic porcelain.	No recurrence of pain.
10.	Persistent pain following descent from initial run.	Deeply seated amalgam filling shown by x-ray.	Filling replaced and cement lining inserted.	No soreness on repeated ascents.
11.	Sore at 5,000 feet. Intolerable at 25,000 feet.	X-ray shows deep amalgam fillings in 1st molar and 2nd bicuspid.	Fillings removed and replaced cement linings used.	No pain on following ascents.
12.	Dull ache after descent from 35,000 feet, upper right cuspid area.	Large fillings noted in cuspid and bicuspid. Cuspid sore to pressure.	Fillings removed and ZnO ₂ bases used.	No recurrence of pain.
13.	Pain on descent from 2nd test.	X-ray revealed large disto-occlusal amalgam filling on upper right 2nd bicuspid.	Filling removed and cement base used.	No recurrence of pain.
14.	1st and 2nd runs without incident. 3rd run—pain at 15,000 feet.	Deeply seated amalgam filling noted in lower left 2nd bicuspid.	Filling removed and properly insulated.	No recurrence of pain.
15.	Pain at 17,000 feet.	Large deeply seated amalgam fillings present.	Fillings removed and placed with cement and amalgam.	No further pain.

low pressure chamber was at a higher altitude than those which they had reached in aircraft during their flying

training. In 20 cases the fillings appeared to be properly sealed. One of these men had an amalgam filling

without an insulating base inserted by the author (G.K.M.) only a few days previously and this was known to be well sealed. In one other, clinical examination showed a demonstrable leak at the margin of the filling and another had a filling which was loose.

In 17 cases the non-insulated filling was removed and replaced by a restoration insulated in 8 cases with cement, in 8 with pulprotex and in one with zinc oxide. These included the two that had shown a leak around the filling. Fifteen did not have any recurrence of pain on later tests. Two developed mild pain on the first "run" after treatment but at a higher altitude than that at which pain had previously been experienced. They had no discomfort on later tests, and treatment was considered successful.

In three other men, in whom a non-insulated filling caused pain, the affected tooth was extracted. One had pain in an isolated tooth with marked recession of the gums in addition to the large amalgam restoration. No restorative treatment was attempted since the tooth was not functional. In the two others the non-insulated filling was removed and the cavity filled temporarily with zinc oxide and oil of cloves. Toothache recurred on the following day and further treatment by filling was considered inadvisable. Both had had fillings inserted fairly recently and it was thought that the tooth might have become less painful after a few weeks. However, since they were not in alignment or occlusion, extraction was indicated.

Two other cases of mild toothache were not treated. One experienced no pain on later tests, the other, only very mild discomfort.

(b) *Thin Insulation*: One man had a severe pain at 12,000 feet in a tooth filled two months previously with a thin cement base. When this filling was replaced with a thick pulprotex lining and amalgam, he experienced only slight soreness at 35,000 feet on the following day, and on later tests

had no discomfort. Another man who had a large filling with red copper base experienced pain at 17,000 feet. When this filling was replaced with a pulprotex-lined restoration there was no recurrence of pain.

(c) *Recent Fillings*: No treatment was given in two cases of mild pain in a tooth which had been recently filled. In one other case the filling was removed and replaced with an insulated restoration and no pain was experienced on later tests.

(d) *Involvement of Pulp Chamber*: Eleven cases showed some involvement of the pulp chamber when the filling was removed, or gave a history of pulp-capping. Three were successfully treated by removal of the filling and replacement with a well-insulated one. Two others developed pain on repeated runs after insertion of cement or pulprotex-lined fillings and the affected teeth were extracted. In four cases the teeth were found to be devitalized on removal of the fillings and extractions were necessary. Two others with a history of exposure of the pulp chamber were sore to percussion or while flying, and the teeth were extracted, without trying the effect of replacement of the filling.

II. INFECTION OF THE ROOT CANAL

The second most frequent cause of pain at high altitude was found to be a chronic or acute apical abscess. Eighteen men developed pain from this cause. In 14 cases there was no previous history suggestive of a dental infection. One other had a slight swelling of the jaw before going in the low pressure chamber and this became acute during the test. A second gave a history of having experienced soreness several months previously, after a filling had been inserted. A third had experienced toothache occasionally during the previous few months while flying and the fourth had known that he had had a devitalized tooth filled two years previously.

In nine of the cases with no history suggesting infection, x-ray examination revealed an opaque area at the apex of the affected tooth. In the remaining five cases soreness on percussion, looseness of the tooth and other clinical findings were sufficient to make the diagnosis, which in all cases was confirmed by finding pus on extraction.

During the low pressure chamber tests, in addition to the pain, five men developed an acute swelling of the jaw. One of these, as was mentioned, had had a previous slight swelling which became more acute. In two cases clinical examination revealed an associated Vincent's infection of the gums. One man had four abscessed upper anterior teeth. The abscess was drained and no symptoms developed on two further runs which were made to 35,000 feet before the teeth were extracted. In all other cases the teeth were extracted and no pain developed on the following runs.

III. CARIES

In four cases, unfilled cavities were considered the cause of the pain. These were all successfully treated by filling with an insulated restoration. However, large cavities have frequently been noted, on examination after low pressure tests on which no discomfort was experienced.

IV. RECESSON OF THE GUMS

In two cases recession of the gums was thought to be the cause of soreness which occurred at high altitude. One was improved to a certain degree by painting the exposed surfaces with ammoniacal silver nitrate.

V. MALFORMATION, TRAUMA AND ERUPTION

One individual who had three first molars without enamel and only secondary dentine on their occlusal surfaces had been advised to have these teeth extracted since they would probably be very sensitive and cause fu-

ture trouble while flying. It was found, however, that no discomfort was experienced during the altitude tests, and the teeth were not extracted.

Another man who developed soreness in an upper molar was found to have a large filling which was taking all the stress. When this filling was ground down to occlude properly there was no recurrence of the pain.

In one case slight discomfort during the time spent at 35,000 feet was thought to be due to an erupting third molar.

One man developed pain during rapid descent on two occasions, but felt no discomfort on a slow descent. Clinical and x-ray examination of the teeth were negative. It is possible that this may have been a pain caused by maxillary sinus barotrauma.

DISCUSSION

The cause of the symptoms cannot be determined with absolute certainty in all of these cases, but the success of the treatment was in most cases an indication that the diagnosis had been correct. In only a few cases was there a history of the affected tooth having been sensitive to heat, cold or percussion after the insertion of the non-insulated filling some time prior to the low pressure tests. It was shown that there was no leak in the fillings which could be demonstrated by dental examination, and as far as could be determined, no gas pockets which might have expanded on ascent. In addition, the toothache developed in some cases only after a considerable period at 35,000 feet, during which no further expansion of gas present at ground level would have occurred, although one could not eliminate the possibility of nitrogen bubbles. The altitude of onset of toothache also varied considerably on different days in some individuals, and it might be expected that a gas bubble of uniform size would produce symptoms repeatedly at approximately the same altitude. In five cases the pain occurred

only during a rapid descent and was not experienced on slow descent. This would suggest the presence of an area in which pressure did not equalize readily, but no evidence is available to substantiate this theory. The fact that proper insulation would prevent recurrence of the pain in most cases suggests the possibility that amalgam fillings alone must have permitted a suction effect to be transmitted to the nerve endings beneath the filling even in the absence of a demonstrable leak. The sealing of this leak by insertion of a lining of pulprotex or cement would prevent this pressure change. Changes in temperature were not responsible for the pain since the decrease in temperature experienced while flying at high altitude was not simulated in the low pressure chambers during these tests.

The mechanism by which a chronic abscess is made painful or is caused to flare-up in an acute form during decompression is obscure. One possible explanation is that the decrease in atmospheric pressure results in some change in the relative pressure inside and outside the abscessed area. Whether this may be due to minute quantities of gas in the abscess cavity is not known. In the five cases in which swelling developed the lowered pressure apparently produced a sudden and marked flare-up of the local chronic infection, sufficient to cause severe swelling within a period of one hour.

Although the incidence of toothache is not large it produces considerable discomfort in many cases and may frequently be sufficiently severe to cause interference with a man's ability

to concentrate on his work, or necessitate discontinuation of an exposure to low pressure. This study has shown that most of this discomfort can be prevented if a proper insulating cement is used in sufficient quantity before inserting a metal filling in a deep cavity and if the presence of periapical infection is ruled out by x-ray examination or eliminated by treatment.

SUMMARY

1. The incidence of toothache, on exposure to high altitude, in a group of more than 7,000 men was 1.6%.
2. Toothache was frequently so severe that descent was necessary.
3. Pain occurred during ascent or while at high altitude in approximately 90% of cases. Ten per cent occurred during descent.
4. Of 65 unselected cases of toothache, 38 were caused by a filling with inadequate insulation or involving the pulp chamber, 18, by an infection of the root canal; 4, by caries; 5, by miscellaneous causes.
5. Most dental discomfort experienced on exposure to low pressure can be prevented if proper insulation is used before inserting deep fillings and if the presence of periapical infection is determined by x-ray and properly eliminated.

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"Wars settle very few things, and little will be settled in this greatest of all wars." — William Ward Ayer.

"Some tasks are so important that they must be gone through with whether we are depressed or not."

The Forum

LISTS TEN AIDS BELIEVED TO BE USEFUL IN REALIZING RELAXATION

TEN "tricks" useful in realizing relaxation are presented in The Journal of the American Medical Association in an editorial which points out the importance of relaxation in relationship to longevity.

If we could learn how to balance rest against effort, calmness against strain, quiet against turmoil, says Dr. Josephine Rathbone, "we would assure ourselves of joy in living and psycho-physical health for life." The psychologists believe that people who live dynamically without being too tense have four main attributes: first, rhythm in their activities with great swings in output and accomplishment, alternating with periods of repose; second, a sense of values which makes it possible to minimize effort and minimize strain; third, ability to reduce muscular tension in any part of the body consciously whenever desired, and, fourth, a readiness to fall asleep at will.

"While these attributes may develop spontaneously to some extent in some persons, it is also possible to cultivate them in a measure. In order to aid such cultivation, ten tricks are presented which are believed to be useful in realizing relaxation. They are:

"1. Cut down on intensity of your thinking half an hour before retiring. (Play Chinese checkers, plan an excursion for the week-end, write a letter to a friend, filled with pleasant things you have been doing.)

"2. Take plenty of time to get ready for bed (next morning's clothes, leisurely bath, and so on).

"3. If you like to read in bed choose nonfiction or a 'hard' book. Force your mind to grapple with cumbersome facts, bore it into unconditional surrender to sleep.

"4. Transplant your mind from fears or hates to a field which has interest without excitement (a new wardrobe, possibly).

"5. Make your mind hop from one idea to another. Just as the mind loses consciousness and sleep comes, thoughts become disjointed and scattered. (Start with some happy episode in childhood, for example.)

"6. To quiet the body, get rid of any pressure or pain. (Lighten weight of covers, clothes.)

"7. Tepid bath without a rubdown. (Get into bed a little damp and chilly. As the body becomes warmed it becomes more and more comfortable. If during the night one becomes sleepless, throw back covers until body becomes uncomfortably chilly. Then when the covers are pulled up again, the body once more sinks into coziness.)

"8. Imitate the slow, deep rhythmic breathing of sleep. (Helps regulate the circulation and may ease the mind and emotions; also tensions in the abdomen.)

"9. Relax the muscles completely.

"10. Get rested before trying to sleep. (Get into bed an hour or more before your regular time for retiring. Do so night after night to build up a reserve of rest and fall asleep without the old struggle.)"

—Jrl., 2nd District D. Soc.



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Editorial

DOMINION PROVINCIAL CONFERENCE

The London Sunday Express says: "While the general election killed conservatism in England, the atomic bomb killed it all over the world." Even now the whole of Europe as well as other parts of the world, is undergoing a social revolution, dominated by the Left Wing. Here in North America, free enterprise is favoured, and we are better off than any other country in the world, for which we thank God.

In this state of flux, dentistry has its part to play. Dentistry has become a necessity in the minds of an ever increasing number of our citizens. People are becoming "Health Conscious." The demand is for greater, more efficient, less expensive, more comprehensive dental service. A system is demanded that will bring dentistry to hosts of people who have not had access to it in the past.

With this in mind, one looks with considerable concern upon the National Health Program as presented to the Dominion-Provincial Conference by the Hon. Brooke Claxton, Minister of National Health and Welfare. Some points are most commendable, such as—"The objects of the proposal for health insurance are to remove the disparities in standards of health service, to avoid risks of sudden, heavy expenditure, to distribute costs and to obtain benefits of better health for our people," also, "Any plan should have the ultimate aim of providing the highest quality of health care for all Canadians in all parts of Canada." "The plans should be capable of being

introduced in any province by several stages" but here is where dentistry is being overlooked.

The report goes on to say that in order to ensure early provision of basic services, a provincial government entering the plan would agree to furnish general medical practitioner service, hospital care and visiting nursing service within two years of its entering upon the plan. The trouble is that dentistry, being a basic service, is not included in the first stage. From the very outset, the physician who tries to treat his cases efficiently, will be faced with the removal of mouth infection. The average physician is neither trained nor competent to diagnose and remove this infection as is the dentist and yet he may be forced to both diagnose and operate to the detriment of the physician, the patient and the dentist. In the first instance, it may not be possible to include even a semi-complete dental service but the removal of infection should be included and provision should be made for the dentist to remove it whether in public clinics or in the private office. The Canadian Dental Association has gone on record as approving doing everything possible to have a dentist appointed in any health centre which may be established. No doubt the Association will do everything possible to have at least a modified dental service included in the first stage of any public health program, and dentistry as a profession will suffer if this recognition is not granted.

24,818,000 dollars is proposed to be allocated for dental care, and may become available eventually for the provinces, to be used for this purpose. Grants will also be made available for professional training, all of which requires the careful scrutiny of every dentist.

The Dominion-Provincial Conference adjourned to meet again on November 26, 1945. The health insurance plan was one of several proposals on different matters presented at this first meeting. On the resumption of the conference, the provincial representatives will present agreement with, or will offer counter-proposals.

Was there ever a time when the Canadian Dental Association was in greater need of full time officers to consider, observe and act on behalf of the dentists of Canada?

M.H.G.

THE FRONTISPIECE

Our Frontispiece in this issue of the Journal is a photograph of The Honourable Gaspard Fauteux of Montreal, Quebec, who has been appointed recently to the position of Speaker of the House of Commons, Ottawa. He was born at St-Hyacinthe, Quebec, August 27, 1898. His father, Dr. Homère Fauteux was a dentist having graduated at Boston. His mother, Eva Mercier, was the daughter of The Honourable Honoré Mercier, past Prime Minister of the Province of Quebec. He was educated at St.-Mary's College and was graduated in dentistry from Laval University in 1921.

He was elected to the provincial legislature in 1931 and in St.-Mary's Division (Federal) in 1942. He was re-elected in the last federal election for the same riding, defeating Camilien Houde, Mayor of Montreal.

In 1922, Dr. Fauteux married Margaret Barre of New York City. He has three sons, one of them serving in the Canadian Navy.

In being appointed Speaker of the House of Commons, Dr. Fauteux is to be sincerely congratulated since no member of our profession has previously been chosen to fill such a highly dignified office in our Federal Government.

Our Secretary of the Canadian Dental Association, Dr. Gullett, has, by letter, expressed to Dr. Fauteux the great pleasure of the members of our Association upon the honour which has come to him, and through him, to the dental profession, and expressing also our wish that every success may be his in fulfilling the duties which he will be called upon to perform.

M.H.G.

BOOK REVIEW

Principles and Practice of X-Ray Technique and Interpretation by H. W. Musterman, D.D.S. Associate Professor of Roentgenology at New York University College of Dentistry.

Dental Items of Interest Publishing Co. Inc. Brooklyn, New York. 278 pages: 511 Illustrations.

"This volume is a considerably enlarged and entirely revised edition of the work of the late Dr. A. L. Greenfield, Professor of Roentgenology, New York University College of Dentistry."

The clear, concise, descriptive language used in the discussion of theory and technique, and the excellence of the many illustrations used in this book, make it a pleasure to read.

The logic of the arrangement and order of the early chapters in the book is open to question. To this reviewer it is somewhat confusing to have "special considerations in technique" discussed before the technique for the normal, is outlined. Furthermore, why the chapter on "Placing films in the mouth" should be separated from the chapter on "Intra-oral technique" by a chapter on "Extra-oral technique," is difficult to understand.

One chapter is devoted to a simplified and graphic explanation of shadow formation. The choice of the simple analogy which has been used is a happy one.

The section devoted to "film processing" is especially good, and the treatment of faulty conditions, such as fog, streaks on films, spots,

reticulation, pressure marks, stains and many others is excellent.

We heartily concur with the author when he stresses the fact that in the examination of films, "all parts of the film should be carefully examined". This is something we can all afford to remind ourselves of often, for it is all too common practice for us to examine the apical regions of the film and neglect the remainder, and even to hold the film up to the window and pass quick judgment on it under such adverse viewing conditions.

The orderly arrangement of the material in the sections on the appearance of the normal dental tissues, anatomic landmarks, and pathological conditions is commendable.

The reading of this book is recommended to all as a sound basis for improvement of the technique and interpretation of dental radiograms.

R. G. ELLIS

Accepted Dental Remedies, Eleventh Edition, 303 pages, prepared by the Council on Dental Therapeutics of the A.D.A. and published by the American Dental Association, 222 East Superior St., Chicago 11, Illinois. Price \$1.50.

This valuable book has become so well known in dental circles that one rather takes for granted that it will find its way into most offices. It contains a list of official drugs which have been accepted by the Council to promote a rational dental materia medica.

ica, and it also contains descriptions of acceptable nonofficial products.

The formula and prescription section should be found useful in writing prescriptions or in requesting the druggist to prepare certain chemical mixtures.

Any dental product using the seal of the

Council may be used with the assurance that the product has been thoroughly investigated and is as represented. It does not mean that the product is recommended but merely that it conforms to the rules laid down by the Council.

M. H. G.

DENTAL CORPS NEWS

SUPPLEMENTARY LIST OF CANADIAN DENTAL CORPS OFFICERS, AUG. 31, 1945

APPOINTMENTS

Rank, Name and Date	Civilian Address	Rank, Name and Date	Civilian Address
Lieut. G. MacDougall, 2-8-45	Lennoxville, Que.	Lieut. D. B. Ward, 2-8-45	Montreal, Que.
Lieut. E. J. Hyde, 2-8-45	Montreal, Que.	Lieut. J. M. Earle, 2-8-45	Montreal, Que.
		Lieut. R. A. Lawson, 2-8-45	Windsor, Ont.

RETIREMENTS

Rank, Name and Date	Civilian Address	Rank, Name and Date	Civilian Address
Capt. N. M. Layton, 20-7-45	Truro, N.S.	Capt. D. B. McMillan, 8-8-45	Winnipeg, Man.
Lt.-Col. G. Franklin, 25-7-45	Montreal, Que.	Capt. B. A. Oja, 2-8-45	St. Vital, Man.
Capt. G. M. Bernier, 23-7-45	Montreal, Que.	Capt. G. G. Beesley, 28-6-45	Moose Jaw, Sask.
Capt. J. Lambert, 3-8-45	Grand'mere, Que.	Capt. L. J. LeQuyer, 3-7-45	Saskatoon, Sask.
Capt. H. A. Cummings, 7-7-45	Kirkland Lake, Ont.	Capt. R. N. G. Brown, 20-7-45	Assiniboia, Sask.
Major C. C. Smart, 11-7-45	Ottawa, Ont.	Capt. A. R. Daly, 17-7-45	Radisson, Sask.
Lt.-Col. L. Davis, 19-7-45	Toronto, Ont.	Major A. J. Saich, 27-7-45	Biggar, Sask.
Major D. H. J. MacDonald, 25-7-45	Toronto, Ont.	Major H. S. Locke, 17-7-45	Shelbrooke, Sask.
Lt.-Col. G. Frawley, 24-7-45	Toronto, Ont.	Major H. E. Johnston, 26-7-45	Moose Jaw, Sask.
Major A. L. Norton, 25-7-45	Dunnville, Ont.	Capt. W. H. Scott, 26-7-45	Vermilion, Sask.
Capt. R. L. Scott, 5-8-45	Toronto, Ont.	Capt. R. N. Grant, 1-8-45	Regina, Sask.
Capt. R. E. Dinniwell, 11-7-45	Bowmanville, Ont.	Major E. V. Springbett, 24-7-45	Wainwright, Alta.
Capt. A. S. Dunn, 1-8-45	Kapuskasing, Ont.	Major N. S. MacDonald, 18-7-45	Drumheller, Alta.
Major A. J. Buchanan, 21-7-45	Acton, Ont.	Capt. E. Wilkinson, 26-7-45	Fairview, Alta.
Major R. F. Taylor, 7-8-45	Listowel, Ont.	Major H. E. Halpin, 11-8-45	Rimby, Alta.
Major J. C. Guthrie, 2-8-45	Port Elgin, Ont.	Major W. H. Geering, 7-8-45	Hartleyville, Alta.
Capt. R. H. Campbell, 19-7-45	Lakefield, Ont.	Major C. J. Foley, 3-8-45	Victoria, B.C.
Capt. E. J. Garfat, 19-7-45	Colborne, Ont.	Capt. C. E. Toll, 9-8-45	Vancouver, B.C.

CANADIAN DENTAL ASSOCIATION NEWS

FROM THE OFFICE OF THE SECRETARY

ANNUAL MEETING

The Executive have now completed arrangements for the Annual Meeting of the Board of Governors to be held in the King Edward Hotel, Toronto, beginning on Wednesday, May 22, 1946. The meeting will be followed by a Joint C.D.A.-O.D.A. Convention to be held May 27 to 30 inclusive, in the Royal York Hotel. A Joint Committee to make arrangements for the convention is in the process of being formed.

Resolution Forwarded by the Alberta Board

The following resolutions have been received:

- (a) "That the Canadian Dental Association be requested to consider the establishment of a classification, for the use of Canadian Dental authorities, of all American Dental Schools as soon as it is feasible to do so".

This resolution has been forwarded to the

Chairman of the Council on Dental Education for the consideration of the Council.

- (b) "That the grant to the Canadian Dental Association for the current year shall be computed on the basis of \$4.00 for each licensed member of the Association and shall include those students, residents of the province, who have graduated from the Faculty of Dentistry, University of Alberta during the war and who are registered but have not been in private practice."

Cheque in full in accordance with the above resolution has been received from the Alberta Registrar.

- (c) "That the Board of the Alberta Dental Association agrees to increase the annual grant to the Canadian Dental Association on the basis of any amount up to \$10.00 per registered member when the majority of the provinces

agree to do likewise and the Board urges that a concerted effort be made by provincial legal bodies to inform their bodies of the great need for financial stability of the Canadian Dental Association." Our Board is of the opinion that the Canadian Dental Association can not perform its full function to the best advantage of the profession without adequate funds.

The Manitoba Board passed a similar resolution as published in the January 1944 issue of the Journal and dated November 2, 1943.

War Memorial Fund

At the Winnipeg meeting the following recommendation contained in the report of the Committee on Rehabilitation was adopted:—"That the Canadian Dental Association establish a War Memorial Fund to honour the memory of those members of the dental profession who lost their lives in the service of their country, with an objective of at least \$5000.00 to be raised by voluntary subscription".

Dr. M. H. Garvin was appointed Chairman of a Special Committee to undertake the raising of this fund. The following resolution was passed:—"That Dr. Garvin be Chairman of the War Memorial Committee and that the Executive be named on this Committee".

The Chairman has now secured information from the Deputy Minister of Taxation to the effect that donations to this fund will be allowed as exemptions from income. The Committee is being formed at the present time.

Mail Order Dentistry

Suspicion has existed for some time that mail order dentistry was being carried on in Canada. Recently indisputable evidence has been produced to leave no doubt about the matter, as the following authentic letter indicates.

Mail Order Dept.
Post Office Box No. 16,
Montreal, March 10, 1943.

Mrs. ———, Baron, Alberta.

Dear Mrs. ———:

We have your favour ordering a full set of artificial teeth. We have so many trays out that may never be returned as they are imported and difficult to get at this time, we

are unable to mail any until some deposit is received on account of same.

Kindly let us have initial payment of \$5.00 and state if jaws are large or small and dental material will be mailed at once. Your plates will be fully guaranteed. If full amount is paid on delivery of plates, we shall give you the new Trubyte teeth which are very natural looking.

Thanking you, we are,

Yours very truly,

WARD'S DENTAL LABORATORY

D. R. WARD.

This matter is being investigated.

Refresher Courses for Retired Dental Officers

All dental schools have reported action in making preparation to conduct suitable courses for Retired Dental Officers. As these courses are prepared announcement will appear in the Journal.

Foreign Applicants for Registration in Canada

This office is in receipt of a great many letters from foreign dentists who desire to register in Canada to practise dentistry. During the last two weeks letters have been received from Holland (3) France (1) Great Britain (4) United States (2) — those from the United States are refugees from Central Europe.

Reply is made stating that registration is a provincial matter and enclosing a mimeographed list of the names and addresses of the Provincial Registrars, to whom they are advised to write for specific information respecting the province in which they desire to practise.

These communications have much in common in that it is stated the writers have been in conversation with members of the Canadian Military Forces and believe Canada to be a wonderful place to live; in that concern for the future of their own country is felt and as soon as possible it is their intention to emigrate to Canada where life can be lived in peace and freedom.

In view of the action taken in Saskatchewan as reported editorially in the May issue of the Journal and various discussions which have taken place by organized dental bodies the matter needs careful study. The responsibility rests with the licensing bodies.

Locations for Retired Dental Officers

During recent months efforts have been made to secure concessions re securing locations for Retired Dental Officers by presenting the entire situation before various officials. In respect to the construction of professional offices the Controller of Construction has now informed the Association as follows:

"We would be unable to give favourable consideration under existing conditions, to any application for a license to construct dental buildings. We are however, fully conversant with the needs of those members of your profession who are retiring from the Armed Forces. It is our practice whenever possible, to assist in the rehabilitation of veterans of the war and in individual cases if members of your profession upon retirement from the Armed Forces, would advise us of their requirements by way of a formal application and would at the same time advise us that the application is for the purpose of providing dental quarters in order to resume civilian practice, we will be glad to give full consideration to their applications".

It is to be noted that individual cases of members of the profession, upon retirement from the Armed Forces, will receive consideration.

Less satisfactory reply has been received from the Rentals Controller, in which it is stated:

"I have your letter of July 5, 1945 and August 22, 1945, with respect to the difficulty which members of your Association are experiencing in obtaining suitable dental suites in which to practice their professions after they are discharged from the services.

This matter is under consideration by the Rentals Administrator and I can assure you that he is fully conscious of the situation as outlined in your communications and consideration is being given to the problem".

Other communications have stated that the office of the Directory of Emergency Shelter in each area would give sympathetic consideration if consulted individually by dentists retired from the Armed Forces. This is the best known procedure at the present time.

Dental societies in the larger centres, through their Rehabilitation Committees, are endeavouring to assist in the matter by every possible means.

Tires For Dentists

The present position of the profession in respect to tires was presented to the Rubber Controller and the following is an excerpt from the reply:

"At this time our sources of supplies will not permit us to grant the release of new tires to groups, other than those defined in the regulations".

SASKATCHEWAN HEALTH PLANS

The Saskatchewan Government has issued a booklet entitled "Plans for Progress" from which the following excerpt is taken:

Health—25,000 Get Free Care, Adequate Services For All Planned

The Saskatchewan Government has taken giant strides toward complete socialized health services for all citizens, irrespective of their ability to pay. The speed with which objectives can be met will depend on the solution of three chief problems, of which that of financing is the least formidable. The other two are the acute shortages of trained personnel and of equipment and facilities.

The shortage of physicians, nurses, and dentists—and other qualified personnel, is partly due to enlistments in the armed forces. Saskatchewan needs 400 more physicians and surgeons, and in addition the province needs specialists, such as psychiatrists, radiologists, bacteriologists. The province requires 600 more nurses. *From 400 to 500 dentists are needed.*

\$100,000 for Medical School

The Government has taken steps to alleviate these shortages of personnel and facilities. One move to ease the doctor shortage is the decision to establish a full medical school at the University of Saskatchewan. For a start on this institution, the Government has set aside \$100,000.

The Government's program is laid out in major stages. The first was the provision of health services to those groups in the province who had no resources of their own from which to pay for care.

Free Treatment for 25,000

On January 1, 1945, the Government inaugurated *free medical, hospital and dental ser-*

rices for 25,000 persons including the old-age and blind pensioners and their dependents, and the dependent children and mothers who are beneficiaries of mothers' allowances. When prescribed by physicians, these people are also given appliances (spectacles, trusses, etc.) and drugs.

To these "first 25,000" the Government hopes to be able to add others, such as 7,000 incapacitated people who cannot work for a living.

The second stage has been the provision of free services for those suffering from illnesses requiring prolonged and therefore costly treatments, and illnesses which are communicable and therefore a danger to the community.

The diagnosis and treatment of cancer, including surgery at either of the two clinics in Saskatoon and Regina is now on a public basis, Saskatchewan being the first province of Canada to make this provision. The mentally ill and the mentally defective are now treated and cared for in the provincial institutions without charge."

Appointment Open—Department of National Health and Welfare

The Civil Service Commission of Canada have issued a circular "Information Respecting Examinations" in which is listed the following

new position in the Department of National Health & Welfare.

Chief, Division of Dental Health:

Salary: \$5,500 per annum.

One Position

Duties—To be responsible for the organization and administration of the Dental Health Division, which is designed to raise dental health standards in Canada; to organize the dental component of Health Insurance and to develop the regulations relative thereto; to provide for improving the dental health standards in the provinces; to perform the functions of co-ordination, survey, appraisal and general exchange of administrative ideas by consultation and conference with the provinces and national agencies and groups, including the Canadian Dental Association and the Canadian Dental Hygiene Association; to assist in the provision of professional information services; to encourage research and improved training for professional personnel; to serve as technical adviser to the Deputy Minister on matters of dental health; and to perform other related work as required.

Qualifications — Graduation in Dentistry from a university of recognized standing; at least five years of subsequent experience in work which would qualify to perform the above duties; demonstrated organizing and administrative ability; thorough knowledge of the field of dental hygiene; personal suitability; tact and good judgment".

NEWS FROM THE PROVINCES

BRITISH COLUMBIA:

Faculty of Dentistry

A Faculty of Dentistry has been requested for the University of British Columbia in a resolution forwarded to the Board of Governors by the Agassiz-Harrison Rehabilitation Association.

SASKATCHEWAN

Dentists Return

The Moose Jaw Dental Society has welcomed back into civilian practice, Drs. Chegwin, Cooper and Beesley while Saskatoon welcomed Dr. Lequyer.

Election

At a recent election by the Saskatchewan dentists the following were elected to the

College of Dental Surgeons of Saskatchewan for a two-year period: Drs. W. M. Blair, Regina; W. W. Irwin, Moose Jaw; and M. J. MacDonnell, Saskatoon.

Saskatoon Dental Society

This Society held its first meeting of the season in the Bessborough Hotel and installed the following officers: President, Dr. D. I. Neuman; Vice-President, Dr. E. S. Shapera; Secretary-Treasurer, Dr. N. Cropper.

At this meeting, Dr. E. Nagle presented a case of Mandibular and Maxillary Fracture. He discussed fractures of the upper and lower jaws at length, discussing the procedures in the treatment.

ALBERTA:**Edmonton Dental Society:**

With a record turnout of 37, the Edmonton Dental Society held its final Golf Meet on September 13.

After dinner the President presented the prizes which were kindly donated by the following firms: Ash Temple Co.; Denco (Western) Ltd.; and Dispensaries Ltd.

This was followed by a very interesting talk on "Dentistry and Dental Health in Costa Rica", Central America, by Dr. Roberto Chartier from San Jose.

He said that Dentistry and Medicine are both socialized and are patterned after the English System. Socialized medicine seems to be proving quite successful, but socialized Dentistry, in Dr. Chartier's mind was not proving as successful and may have to be abandoned.

Dr. J. D. Hawkins was in the chair, while Dr. D. E. Florence was in charge of the arrangements.

ONTARIO:**Dr. Sisley Honoured**

Dr. E. B. Sisley, Department of Health, has been honoured recently in being elected a member of the Society of Canadian Painter-Etchers and Engravers. Dr. Sisley, who paints and etches as a hobby, is to be congratulated on being deemed worthy to belong to a select body of artists, who are doing much to further the cause of fine print making in Canada.—Civic Service News.

A reproduction of one of Dr. Sisley's etchings appears on Page One of this issue of the Journal—Editor

Toronto Academy of Dentistry

At the Academy Winter Clinic held this year on November 28, an exhibition of photographs will be one of the prominent features. Those who have interesting prints they would like to exhibit or who may desire information please communicate with Dr. Charles McLean, Sterling Towers, Bay St., Toronto.

Dental Nurses' Alumnae Association

The vacancies left on the Alumnae Executive owing to the resignation of the President, Miss Lillian Potter and Vice-President, Miss Barbara Cooper, have been filled by Misses Lois Mooney and Betty McCarter re-

spectively. Miss Ruth Mayhew has accepted Miss Mooney's former office of Assistant Corresponding Secretary.

HELEN KRUGER

**Dr. Douglas Tanner, B.Sc. (Dent.)
Awarded O.B.E.**

For outstanding service with the 15th Canadian General Hospital, particularly for his work in maxillo-facial surgery, Dr. Tanner has been given this fine recognition of merit. He joined the C.D.C. in May 1940 and since that time he has served 3½ years with this hospital unit in England, Africa, and Italy. Recently Dr. Tanner has been given his discharge to assume direction of dental services in Toronto General Hospital and a teaching post in Dental Surgery and Anaesthesia on the Faculty of Dentistry, University of Toronto.

**Staff Promotions
Faculty of Dentistry, University
of Toronto**

J. H. Johnson, D.D.S., Professor of Dental Surgery and Anaesthesia

G. V. Fisk, D.D.S., Associate Professor of Orthodontics

J. M. Sheldon, D.D.S., Associate Professor of Operative Dentistry in charge of Ceramics

T. N. Scott, D.D.S., M.Sc. (Dent.), Associate in Dentistry

H. Halderson, D.D.S., Associate in Orthodontics

R. E. Diprose, D.D.S., Associate in Dental Surgery and Anaesthesia

P. W. Arkle, D.D.S. Toronto, L.D.S. Glasgow, B.Sc. (Dent.), Associate in Dentistry.

Toronto East Dental Society

Pioneering as a district society in Toronto, this enterprising group are well under way with their 1945-46 program. Congenial Dr. Roy Kerr is president and he is supported by an able executive. A successful golf tournament was held on Sept. 12 at Cederbrae Golf Club. The opening dinner was held on October 4 when members and their ladies attended for a social evening. Some of the guests present were: Dr. Harvey Reid, President of the Canadian Dental Association and Mrs. Reid; Dr. Frank Martin, President of the Ontario Dental Association and Mrs. Martin; Dr. Harold Swales, President of the Academy of Dentistry and Miss Swales; Dean Arnold Mason of the Faculty of Dentistry and Mrs. Mason.



Canadian Army Overseas Photo

DENTAL TRAINING CENTER AT UTRECHT

Demonstration at Dental Training Centre operated by First Canadian Army at Utrecht where dentists can learn new methods and brush up on the old. In the foreground is Capt. Lloyd Jacobson (New Westminster, B.C.) working on Sgt. Ernest Bradley (Boston, Mass.) assisted by Sgt. John Menard (Moose Jaw, Sask.). They are demonstrating a fine point to Major Ken Levinson (Winnipeg).

Even though our enemies have been vanquished, the maintenance of the Canadian forces of occupation overseas must be kept up. They must be paid, fed, clothed and the allowances to their dependents must be kept up. Your purchases of Victory Bonds during the Ninth Loan will help supply the necessary money to meet these and other demands.

NOVA SCOTIA:

Resolution

At the annual convention of the Nova Scotia Dental Association held in Kentville, N.S., early in August, two resolutions were

passed, the first extending an invitation to the Canadian Dental Association to meet in Digby, N.S., in 1947; the second, regarding registration between members of the British Association or Governing Board and the Dominion Dental Council.

GENERAL NEWS

Ludwig's Angina Treated with Penicillin: Report of Case

by ARTHUR F. DORNER and DAVID MORGAN
Summary of article in Jour. of Oral Surg., July, 1945.

This patient, who was critically ill with Ludwig's angina, was given a total of 400,000 Oxford units of penicillin by intramus-

cular injections of 20,000 units each during a period of four days. After the first twelve hours, there appeared to be no progression of the disease and the patient was comfortable. Within thirty-six hours, definite improvement was observed; and, by the fifth day, the hard, boardlike induration had

subsided. At no time, either before or after treatment, was there any evidence of supuration in the entire area, subcutaneously or within the mouth, resolution being complete.

It is our opinion that if penicillin had not been available, drastic surgical procedure would have been necessary, and the prognosis would have been extremely grave.

IN MEMORIAM

Ernest H. Wickware of Smiths Falls, Ontario, aged 68, died suddenly on September 9.

Dr. Wickware was graduated from the Royal College of Dental Surgeons of Ontario in 1902. He has practiced his profession in Smiths Falls for 43 years.

He was an active citizen and prominent in educational circles. For 32 years he was a member of Smiths Falls Board of Education and was chairman for 12 years. He was still Secretary-Treasurer of the Board when he died. He was a past president and director of the Ontario Educational Association and two years ago was elected a life member.

He was past president of Smiths Falls Liberal Association. He was a charter member and past president of the Rotary Club. He was a past master of St. Francis Lodge A.F. & A.M.; and a member of the Board of Stewards of Trinity United Church. At the time of his death he was chairman of the Public Library Board. It can be truly said, he served his community well.

Dr. Wickware is survived by his widow and one daughter.

Arthur M. Shaw of Kentville, Nova Scotia, aged 73, died September 6. He was graduated from Boston Dental College and had practised in Kentville for over 40 years.

He was a member of Hiawatha Lodge, I.O.O.F., and Basil Encampment, No. 58 A.F. & A.M., Kentville. He was past noble grand of the Oddfellows and past worshipful master of the Masonic Lodge. For 31 years he held the unique record of being both secretary of the local I.O.O.F. and Masonic Lodges.

Dr. Shaw was survived by his widow.

William P. Jebb of Oakville, Ontario, aged 49, died at the Toronto General Hospital on August 17.

Dr. Jebb was graduated from the Faculty of Dentistry, University of Toronto in 1923. He has practised in Oakville since that time. He was a veteran of the First Great War serving with the 48th Highlanders for four years.

He was an active member of St. Jude's Anglican Church, serving as Rector's Warden. He was a past president of Oakville Rotary, a past master of Oakville Masonic Lodge, a member of Oakville Golf Club and a member of Xi Psi Phi Fraternity. Dr. Jebb was a fine citizen and enjoyed a wide circle of friends.

He is survived by his widow, two daughters and his mother.

Paul-E. Picotte of Sainte-Genevieve-de-Pierrefonds, Quebec, died on May 2. He was graduated from Montreal University in 1914 and commenced practice in Montreal. Enlisting in the dental corps in the first great war he served overseas as captain.

He moved to Amos, Abitibi, P.Q., in 1921 where he practised continuously until ill health forced him to retire in 1939.

Dr. Picotte is survived by one sister and one brother.

Albert Henry Tanner of Victoria, British Columbia, aged 70, died September 9. He was graduated from Chicago Dental College and had practised in Victoria for more than 30 years.

Dr. Tanner is survived by his widow, one son, one daughter, two sisters and a brother.



LE DOCTEUR ERNEST CHARRON

Nous apprenons avec une extrême satisfaction que le Docteur Ernest Charron, Doyen de la Faculté de Chirurgie dentaire vient d'être nommé "Fellow of the American College of Dentists" en reconnaissance des services éminents qu'il a rendu à la science dentaire.

Quand on songe au travail considérable que le Doctor Charron s'est imposé dans la réédification de notre Faculté de Chirurgie dentaire et à ses qualités pédagogiques qui ont laissé une si profonde empreinte dans l'esprit de tous ses élèves, on est peu surpris que la profession dentaire américaine lui ait décerné la plus marquante de ses distinctions.

Le Comité de Rédaction de la Revue dentaire canadienne se joint donc à tous ses confrères pour adresser au Docteur Charron ses très sincères félicitations et lui souhaiter de rester encore longtemps le centre de l'activité de la Faculté dentaire, d'où rayonnent vers ses collaborateurs ses qualités d'animateur au travail, son grand savoir et sa conscience professionnelle impeccable.

LE COMITE DE REDACTION.

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REDACTEUR

ALCIDE THIBAUDEAU, D.D.S., A.I.D.O.

516, est, rue Sherbrooke, Montréal.

Prothese Maxillo Faciale

par: Gérard de Montigny, B.A.,
D.D.S., M.S.D.

DEFINITION:

Spécialité de l'art dentaire, qui s'occupe de restaurer, au moyen d'appareils mécaniques, des parties absentes de la cavité buccale, de la figure ou de la tête. Elle comprend aussi la confection de supports utilisés dans certaines fractures des maxillaires, dans des opérations de chirurgie plastique, et dans l'application du radium dans la bouche ou sur la figure pour le traitement des tumeurs malignes.

Cette définition élimine la prothèse normale, c'est-à-dire le remplacement des crêtes et des dents. Elle couvre un champ plus vaste, puisqu'elle restitue des parties anatomiques situées au delà de la cavité buccale.

Cette science est du domaine dentaire parce qu'elle comporte la prise d'empreintes, la manipulation de substances à modèles positifs et négatifs, la construc-

tion d'appareils de précision; elle est en relation très fréquente et très étroite avec les dents et les maxillaires. Le dentiste, par ses études de l'anatomie, de la physiologie et de la physionomie des tissus de la bouche et de la figure est tout désigné pour s'occuper de cette spécialité.

SYNONYMES:

L'appellation de cette subdivision de la prothèse a souvent changé et encore aujourd'hui on ne s'entend pas bien sur le nom à lui donner. On l'a d'abord nommée "prothèse chirurgicale". Ce terme porte à confusion puisqu'il implique l'idée de chirurgie. On a jadis proposé "prothèse spéciale". Ce nom est trop général et inclut la fabrication d'appareils pour remplacer des membres. L'appellation "prothèse maxillo-faciale" est trop restreinte. Elle ne renferme pas le

concept de confection d'oreilles. "Prothèse auro-maxillo-faciale" serait plus précis, mais trop long. D'ici à ce qu'on trouve un terme plus adéquat, nous employons "prothèse maxillo-faciale".

HISTORIQUE:

La science de la prothèse maxillo-faciale n'est pas nouvelle. De tous temps, des mutilés de la face ont essayé de masquer leur infirmité, et souvent au moyen d'artifices bien rudimentaires. Depuis la première grande guerre, ces corrections de défauts congénitaux ou acquis ont été l'objet d'études et de recherches, qui en ont fait un art autonome. La littérature scientifique de ces restaurations remonte au quinzième siècle. Depuis cette époque, des praticiens habiles ont rapporté des procédés artificiels pour remplacer des organes, comme les maxillaires, les nez, les oreilles, les joues, etc. Les pionniers de cette science furent Pétrionius (1565), Paré (1579), Fauchard (1728), de la Barre (1820), Snell (1828), Kingsley (1885), Mitchell (1905). Dans notre époque contemporaine, Martin, Villain, Kazanjian, FitzGibbon, Olinger, Young, Bulbulian, Beder, Ackerman, etc., sont des noms que nous trouvons dans les articles de revue, traitant de prothèse maxillo-faciale.

INDICATIONS:

On peut avoir recours à la prothèse maxillo-faciale pour la correction ou la dissimulation d'un défaut de la figure quand:

1. L'organe anatomique, qui est absent, ne peut être greffé ou remplacé au moyen de chirurgie esthétique (ex ; résection du maxillaire ou de la mâchoire, (cancer, tuberculose,) palais perforés, inopérables, énucléation d'orbite, etc.) ;

2. Le chirurgien appréhende une récurrence et tient le malade sous observation (ex; cas de cancer fraîchement opéré);

3. Le patient est sous traitement et qu'il faut remettre à plus tard une intervention chirurgicale d'ordre plastique (ex: irradiation d'une région de la

bouche ou de la figure avec des grains de radium, etc.);

4. Le patient présente un mauvais risque chirurgical.

CLASSIFICATION DES DEFAUTS DE LA FACE ET DE LA BOUCHE.

Les défauts de la bouche et de la figure, qui peuvent être corrigés par la prothèse, sont de deux ordres:

1—*Defauts Intra-Buccaux:*

A.—Maxillaire —a—dentaires.
b—alvéolaires.

B—Mandibule—a—dentaires.
b—alvéolaires.

C.—Palais— a—congénitaux.
 b—acquis.

2—*Defaults Extra-Oraux:*

Λ—Orbite.

B—Oreille.

C—Nex.

D—Crâne.

1—*Defauts Intra-Buccaux:*

1—Maxillaire et mandibule:

La perte des dents est l'infirmité la plus commune de la cavité buccale. Cette disparition des dents produit une résorption du procès alvéolaire et une altération des traits de la figure. Certains facteurs favorisent une résorption continue des crêtes alvéolaires.

1—Pathologie locale.

2—Fléchissement de l'état général.

3—Dentiers complets ou partiels inadéquats. Cette disparition lente des crêtes donne des traits de figure, que nous connaissons bien: affaissement des coins de la bouche et des ailes du nez, apparition prématurée de rides, rapprochement du menton et du nez.

Avec la prothèse, ces patients recouvrent leur fonction masticatrice. Le rôle du dentiste ne se borne pas à la mastication. L'aspect du visage, son expression naturelle, la phonation doivent aussi être restaurés chez ces patients édentés. Quand le malade a repris tous ces attributs, son caractère psychique s'améliore; il reprend sa personnalité, sa confiance

en lui-même, son assurance; son concept de l'existence est tout changé.

2—Palatins:

Il y a deux sortes d'infirmi- tés du palais:

a—Congénitales: fissures palatines
Ces fissures palatines sont d'étendue variable. D'un simple trou au palais, elle peut diviser celui-ci complètement, d'arrière en avant. Elles sont souvent accompagnées d'une fissure simple ou double de la lèvre. On a alors un "bec de lièvre". Un enfant sur 10,000 à 12,000 souffre, à sa naissance, de cette dif- formité dont la cause spécifique est en- core inconnue.

Cette malformation résulte d'une su- ture incomplète ou d'un écartement total des tissus durs et mous du palais, au stage embryonnaire. Parfois, non seulement, les deux bourgeons ne se soudent pas ensemble, mais le vomer est absent ou incomplet. Les raisons suivantes jouent un rôle dans l'étiologie de cette infir- mité:

1—mauvaise alimentation de l'embry- on; des expériences récentes tendent à incriminer la carence de vitamine "A"

2—hérédité.

3—influence mécanique: pression du genou, de la langue ou de la main de l'embryon tenant à l'écart les parties, qui doivent se joindre.

4—poisons circulant dans le sang de la mère (toxines, alcool, médicaments.)

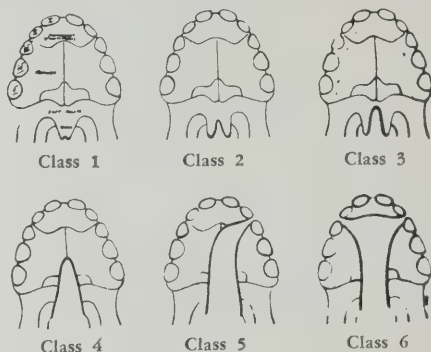
CLASSIFICATION DES FISSURES PALATINES:

La Faculté de chirurgies dentaire de l'Université Columbia de New York, le plus grand centre de prothèse maxillo- faciale des Etats-Unis, a élaboré une classification pour les fissures palatines.

Fig. No. 1

Le Dr. John Fitz-Gibbon, d'Holyoke, Mass., un spécialiste de la fabrication

CLEFT PALATE Classification



(Diagram Drawings)

Fig. No. 1

Classification de l'Université Columbia pour les fissures palatines.

d'obturateurs pour les fissures palatines, divise celles-ci en quatre classes.

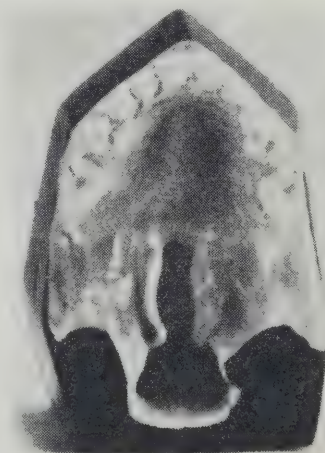


Fig. No. 2-3-4-5

Classification du docteur John Fitz Gibbon pour les fissures palatines. (Faveur du docteur Fitz Gibbon) (Holyoke, Mass.).

Le dentiste rencontre des combinaisons de ces différentes catégories, surtout si le patient a subi des interventions chirur- gicales, qui ont modifié les attachements muqueux et musculaires de son palais. Les appareils confectionnés pour corriger

ces défauts de la voûte palatine sont de deux genres:

1—Obturateurs mobiles ou munis

cavité pharyngienne: ses faces latérales et postérieures doivent toujours être en contact avec les muscles du palais mou et



Fig. No. 3



Fig. No. 5

d'une poutre. Ces appareils sont employés quand les muscles du palais mou sont flexibles et quand les muscles palato-pharyngiens peuvent entourer et actionner une luette artificielle.

du pharynx, même dans leurs mouvements.

La fabrication de ces appareils rend un service inappréciable à ces infirmes du palais. La phonation et l'articulation



Fig. No. 4

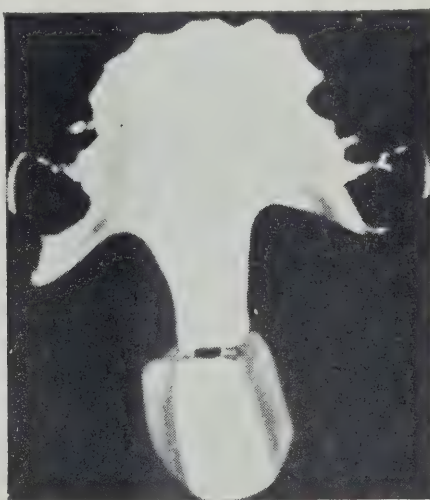


Fig. No. 6

2—Obturateurs immobiles ou fixes. Ces obturateurs ont une projection à la partie postérieure, qui s'étend dans la

Genre d'obturateur mobile. (Faveur du docteur Oscar E. Beder.)

deviennent plus juste et plus facile. Les patients avec des exercices phonétiques appropriés, acquièrent un langage nor-



Fig. No. 7

Genre d'obturateur fixe. (Faveur du docteur Oscar E. Beder, New York.)

mal et se débarrassent ainsi de leur complexe d'infériorité.

b) — Acquisies:

Les infirmités acquises du palais sont le plus souvent causées par:

1—Traumatisme—accidents, blessures, etc.

2—Maladies — carcinômes, sarcomes, ostéomyélite, tuberculose, syphilis, etc.

3—Brûlures de Radium et de Rayons—X.

(Voir Figs. 8-9-10)

Ces défauts acquis varient d'une petite perforation du palais dur ou du palais mou à une perte totale du squelette osseux. La rétention de ces appareils s'obtient de différentes manières; pression atmosphérique, ancrage sur les dents présentes, chausseins s'étendant dans les cavités, ressorts, etc.

B) — *Defauts Extra-Oraux:*

Le service le plus spectaculaire, que



Fig. No. 8

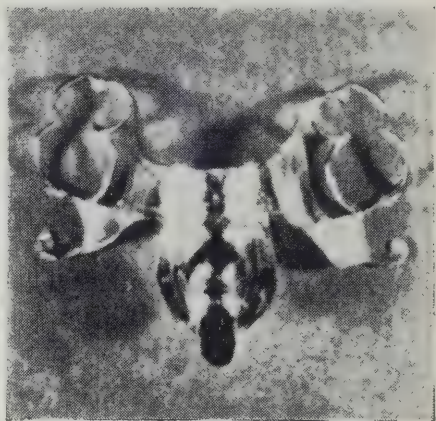


Fig. No. 9



Fig. No. 8-9-10

Obturateur pour cavité palatine occasionnée par carcinome. (Faveur du docteur N. Olinger, Bloomfield, N.J.)



Fig. No. 11-12-13-14

Prothèses faciales réalisées en latex (caoutchouc prévulcanisé) (Faveur du docteur A. H. Bulbulian, Mayo Clinic, Rochester.)

la prothèse maxillo-faciale peut rendre à un patient, est peut-être le remplacement d'un nez, d'une oreille; d'une orbite, d'un oeil, d'un doigt ou d'une partie de la joue au moyen de substance inerte

Il y a plusieurs causes pour la perte d'un de ces organes, mentionnons les accidents, les blessures de guerre, les lésions cancéreuses, la syphilis, le lupus ou une malformation congénitale.

La chirurgie plastique est le premier recours de ces mutilés. Le chirurgien peut presque toujours par la greffe cutanée et la transplantation des tissus, refaire ces appendices, mais il se rencontre des cas, où une telle opération n'est pas possible pour les raisons suivantes: vieil âge, tumeur susceptible de récurrence, incapacité financière, manque de temps, localisation et volume de la masse à remplacer. Plusieurs matériels ont été essayés pour la fabrication de ces nez ou de ces oreilles artificiels: gélatine, vulcanite, métaux, celluloides, etc., mais aucune de ces substances ne possède les qualités requises pour ce genre de restaurations.

- 1—facilité de manipulation.
- 2—coloration précise.
- 3—rétention prolongée et solidité.
- 4—consistance ressemblant à celle de la chair.

5—endurance et propreté.

Il n'y a pas encore de matériel, qui remplisse toutes ces conditions.

Le caoutchouc, latex prévulcanisé, mis de l'avant par A. H. Bulbulian de la clinique Mayo et par C. D. Clark, de l'Université de Maryland, est la substance, qui se prête le mieux à ces reconstructions faciales.

(Voir Figs. 11-12-13-14)

La compagnie Vernon Benshoff vient de mettre sur le marché une résine plastique de différentes couleurs s'apparentant à la peau appelée Dicor "A", pouvant servir à ces organes externes. De même la compagnie H. D. Justi and Son, Inc. présente une substance analogue, appelée "Skin-tex". La technique pour refaire ces nez et oreilles est assez facile, elle comprend la prise d'empreinte, la sculpture de l'organe, la préparation de la substance et sa coloration. Ces appen-



Fig. No. 12



Fig. No. 13

dices artificiels tiennent en place au moyen de lunettes ou au moyen de colle, dont se servent les costumiers pour les moustaches et les barbes postiches. La phase la plus délicate de tout le travail est la coloration; il faut imiter à la perfection la teinte de la peau du patient.

Cas Spéciaux:

Le dentiste, qui s'occupe de prothèse



Fig. No. 14

maxillo-faciale rencontre occasionnellement des cas qui demandent des pièces de prothèse spéciales. Enumérons quelques-uns de ces cas: rencontrés depuis quelques années.



Fig. No. 15-16-17

Appareil dentaire pour la fixation de fragments osseux dans fracture de nez. (Faveur du docteur Charles Schork, Bethesda, Md.)



Fig. No. 16

1—résection complète du maxillaire supérieur et d'une portion du septum nasal.

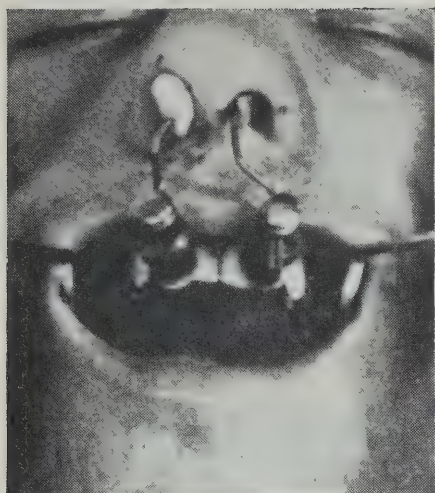


Fig. No. 17

2—résection de la moitié de la mâchoire, à cause de tuberculose osseuse diffuse.

3—amputation d'une partie de la langue.

4—résection chirurgicale ou perte de substance de la figure, combinée avec une destruction d'une partie des maxillaires.

Ces cas et un grand nombre d'autres sont généralement traités à l'aide de chirurgie esthétique.

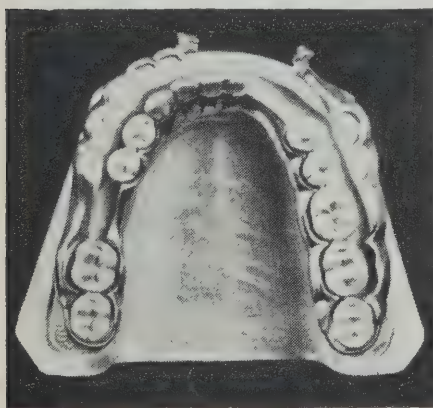


Fig. No. 18-19

Appareil pour le traitement des fractures de la mandibule. (Faveur de John B. Erich et Louie T. Austin, Rochester.)

Mais certains de ces patients, pour des raisons énumérées plus haut, ne peuvent subir une intervention chirurgicale. Il appartient alors au prothésiste de confectionner des appareils spéciaux et d'aider ces infirmes.

Il n'y a pas de principes rigides à suivre pour la fabrication de ces pièces.

Une bonne empreinte, des modèles d'étude et de travail, un bon diagnostic et un plan déterminé forment la base de l'élaboration de ces appareils.

Les tissus intacts, dents, os, tissus mous, entourant le défaut servent d'ancrages pour ces prothèses. Les couronnes coulées, des crochets, du fil de métal, des

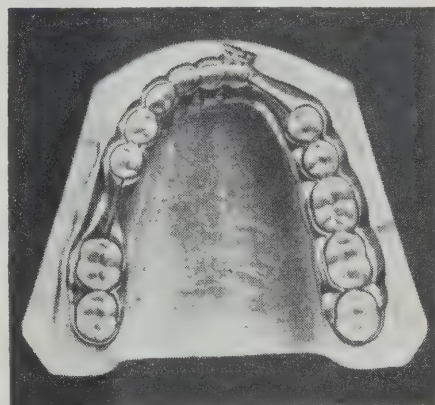


Fig. No. 19

ressorts à spirale, enfin tout l'arsenal de l'appareillage imaginé par l'ingéniosité de l'opérateur, sont mis en oeuvre pour la confection de ces appareils.

APPAREILS POUR LES FRACTURES DE MAXILLAIRES:

On peut fabriquer plusieurs genres de supports pour la réduction et l'immobilisation des fractures des maxillaires. Ces appareils sont dessinés et construits pour chaque cas particuliers.

Ces supports peuvent être confectionnés en vulcanite, en substance acrylique ou en métal coulé.

APPAREILS POUR LA GREFFE CUTANEE ET L'APPLICATION DE RADIUM:

Le chirurgien plastique tend toujours à donner aux tissus une conformation extérieure aussi normale que possible. Si le cas ne présente pas une perte très grande de substance, l'objectif peut être atteint assez facilement. Si d'un autre côté, il y a destruction considérable de tissus osseux, le chirurgien aura peut-être besoin d'un appareil pour supporter les tissus durant

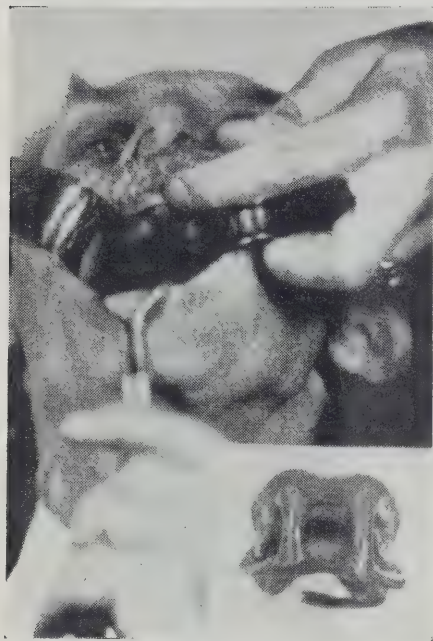


Fig. No. 20-21

Appareils pour l'application de grains de radium dans la cavité buccale. (Faveur du docteur Oscar E. Beder, New York.)

leur guérison. Voilà une autre application de la prothèse maxillo-faciale.

1—des appareils peuvent être utilisés pour supporter les tissus mous immédiatement ou peu après l'accident: à ce stage, les parties sont molles et mobiles et quoiqu'elles soient inflammées, une pression douce peut être appliquée pour diriger la guérison et éviter une contraction désagréable.

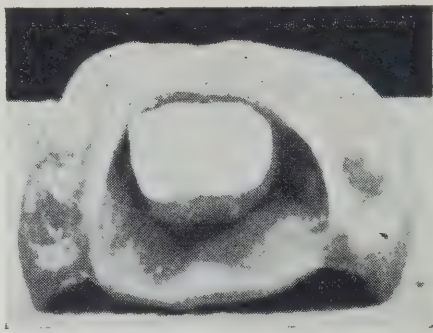


Fig. No. 21

2—des appareils peuvent maintenir les tissus intra-oraux dans un état tel que le contour et la forme extérieure définitive sont plus normaux et peuvent s'adapter à des dentiers ou des appareils spéciaux.

3—des moules peuvent être façonnés, à la demande du chirurgien plastique pour maintenir une greffe de tissu en place, tout spécialement autour du cou, de la tête et de la bouche. Leur application la plus fréquente est dans la bouche

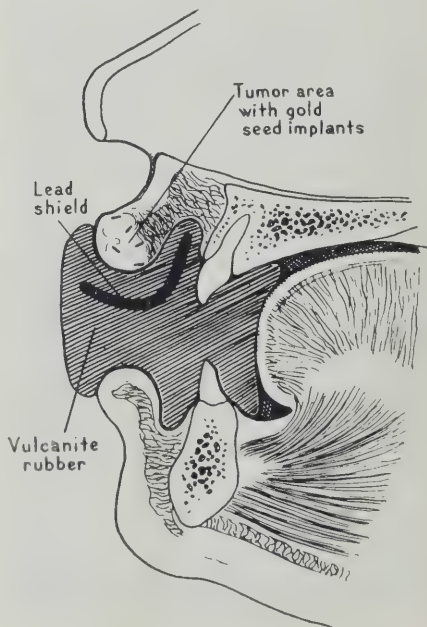


Fig. No. 22

Appareil de protection des tissus sains contre les irradiations du radium. (Faveur du docteur Andrew Ackerman, New York.)

où il faut parfois greffer, ou ajouter une muqueuse pour créer un replis ou un vestibule détruit par des cicatrices provenant d'infection, de brûlures ou de blessures.

Fig. No. 20-21

De même, des moules doivent parfois être fabriqués pour agir comme écrans protecteurs des tissus adjacents à des cellules néoplasiques qu'on traite au moyen de radium.

Dans le traitement des cancers au moyen de radium, il est important que

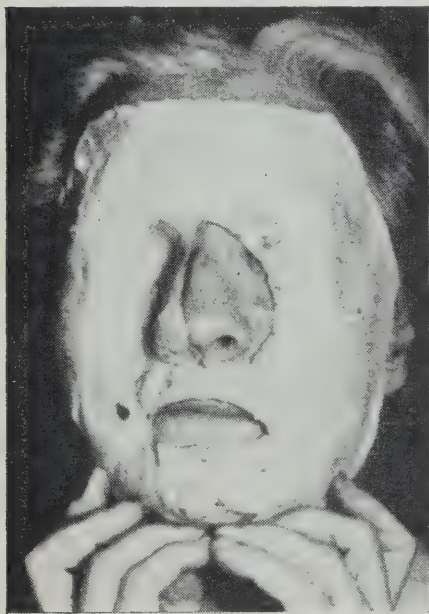


Fig No. 23

Masque de plomb pour protéger les tissus contre les irradiations du radium. (Faveur du docteur Andrew J. Ackerman, New York.)

l'irradiation totale soit dirigée vers le foyer tumoral et ne se répande pas dans les cellules voisines, saines.

La prothèse maxillo-faciale peut construire des appareils qui protègent les tissus sains des émanations du radium; ces écrans peuvent être faits pour la bouche comme pour la figure et doivent renfermer dans leur sein des plaques de plomb.

CONCLUSIONS

Nous avons énuméré, dans cet article, quelques applications de la prothèse maxillo-faciale. Il en est des centaines d'autres, car son champ d'action est illimité. Par la prothèse maxillo-faciale, le dentiste est le bras droit du chirurgien plastique. Grâce à cette collaboration, des infirmes de la face dont les cas semblent désespérés, reprennent leur place dans la société. Il est regrettable toutefois que cette prothèse spéciale ne soit pas plus connue des médecins et des dentistes. Il est vrai que les patients nécessitant les services de cette science sont rares et en général peu fortunés: mais cette prothèse, qui se modifie pour chaque cas particulier et qui n'obéit à aucun principe rigide, est pleine d'intérêt pour le praticien ingénieux et inventif. Des merveilles ont été accomplies dans ce domaine, par des dentistes habiles et, de plus, doués d'esprit humanitaire. Cette science mérite un meilleur sort et, de fait, elle se développe de plus en plus pour le soulagement des mutilés de la face, que nous retourneront les champs de bataille.

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In Memoriam

Montréal 10 septembre 1945.

Docteur Paul-E. Picotte de Sainte-Geneviève-de-Pierrefonds, près Montréal, est décédé le 2 mai dernier. Il avait reçu son parchemin en 1914 de l'université de Montréal et avait commencé à exercer sa profession à Montréal. En 1915, il s'engage volontaire dans le corps dentaire et sert en France comme capitaine.

Il déménage à Amos, Abitibi, en 1921, où il demeura jusqu'à 1939 alors que la maladie le força à cesser tout travail.

Le docteur Picotte laisse un frère et une soeur.

Les dents sont des organes de consistance dure, placés à l'entrée du tube digestif et destinés à la préhension, à la dilacération et surtout à la mastication des aliments.

La carie dentaire est une affection microbienne des tissus durs de la dent amenant progressivement la décalcification, la dislocation et la fonte de leurs éléments cellulaires.

La santé de la bouche est l'un des principaux facteurs qui contribuent au développement normal du corps humain pendant sa période de croissance et que fortifient sa résistance naturelle à la maladie.

La vitamine "D" favorise l'assimilation de la chaux et du phosphore nécessaire à la formation des os et des dents.

Nos enfants mangent trop de bonbons et ne mangent pas assez de fruits et de légumes verts. On doit s'efforcer de leur inculquer l'habitude de substituer ceux-ci à ceux-là.

Les parents doivent se rendre compte qu'ils sont responsables de la santé présente et future des dents et de la bouche de leurs enfants.

L'hygiène de la bouche présente un aspect économique. Bien qu'on ne s'en rende pas compte généralement, la carie dentaire obère de façon sensible les budgets des commissions scolaires.

Il est possible de prévenir la carie et les autres défauts dentaires par le régime, la propreté de la bouche, la mastication suffisante, l'inspection périodique et l'intervention du dentiste en temps utile.

Pour réussir dans ses études, l'enfant doit concentrer son attention sur ses leçons et ses devoirs. Comment le pourra-t-il s'il souffre à tout instant de douleurs lancinantes, ou si sa santé, minée par la mauvaise nutrition, est chancelante?



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THE BOOK OF FAME

"Will you sign please?"

(With the British Empire's gratitude)



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OPERATIVE PROCEDURES*

by J. H. JOHNSON, D.D.S.

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IF ANY one of us while in the act of removing a tooth were suddenly asked what we were doing; we would probably reply that we were extracting a tooth. However, if we were asked to state in detail and in the fewest possible words just what we were attempting to do our answer might be somewhat as follows: With the best possible degree of surgical cleanliness and with the best possible anaesthesia I am attempting to remove this tooth and any associated pathological tissue with the minimum amount of trauma, and to so contour the socket margins as to promote rapidity of healing and a minimum of post-operative discomfort. In fact, we are trying to perform a surgical operation, the basis of which is asepsis, anaesthesia and rational operative procedures requiring a reasonable degree of skill, which in view of the frequency of abnormalities and difficulties, is a task of not inconsiderable proportions.

While exodontia as a specialty has developed along fairly satisfactory lines, the whole problem of extraction of teeth, as it affects the general practitioner in Dentistry, is in a decidedly unsatisfactory state. The remuneration for the extraction of difficult teeth which the general practitioner receives is the least received from any

dental service, particularly when unforeseen difficulties and postoperative complications are taken into account. The average fee received for the extraction of all the teeth that were removed in Canada in the past year would probably be not more than one dollar per extraction. To provide true surgery for such a paltry fee would at once appear to be fantastic. Many factors contribute to present conditions. The extraction of teeth was the first dental operation. For years the operation was performed without anaesthesia of any kind and in the crudest manner possible. The fee was originally low and has tended to remain so. Again, extraction is an emergency operation which must be rendered daily to discharge our obligation to the public respecting the relief of pain. The poor we have always with us, and as a class they seem to be particularly prone to dental pain which requires extraction as the only cure. That this must often be done on a charitable basis has also tended to keep extraction fees at a very low ebb. We also suffer from the unfortunate inheritance of giving a rebate or entirely remitting the fee for extraction, provided the dentures were made by the same operator. This practice has now almost entirely disappeared, but

*Presented before the Toronto Academy of Dentistry as part of a symposium on Oral Surgery, March, 1945.

the effect which such methods had on the public mind is still with us. The only ultimate result possible was to induce the public to think that our surgical efforts were valueless.

In comparison with the medical profession, we suffer in our relationships with the indigent. The lowliest and most impoverished citizen in the land, when in need of major surgery, has access to the operating rooms of our best hospitals, where the same services and aseptic routine are available to him as would be given if he were the first citizen. If the hospital should have a deficit, as most of them have, it is adjusted by a civic grant, contributed to by the public at large, including the rank and file of the dental profession. The dental indigent, however, receives no such preferment. In the past we have often been expected to take care of them on a mass production basis, often in some out-of-the-way corner, in surroundings that were scarcely sanitary. In years past it was a rather common occurrence for a patient who suffered a postoperative complication to return to his dentist and say "The Doctor said you used a dirty instrument," and this statement is still heard, but less and less frequently. Unfortunately our most severe criticism has often come from those members of the medical profession whose minds are most barren when asked for any remedial suggestions. Let us in fairness to our profession remember that sterile operating rooms are not available to us at public expense, nor in normal times has the lower wage group been in a financial position to pay for such services in the office of the private practitioner. The conscientious general practitioner of dentistry who attempts to be surgically clean in his routine extractions under existing conditions is in a well nigh intolerable position. He is attempting to supply a service to the public the value of which they rarely appreciate, and for which they are either unwilling or unable to pay. The time has come when surgery should

stand on its own feet in relation to other dental procedures. For too long the loss which we have suffered from the surgical phase of our work has been recouped through the succeeding inlay, bridge or prosthetic restoration that was inserted. The time has come for us to portray ourselves as a fount of professional services rather than peddlers of gold.

The benefit of dental anaesthesia in the monetary sense has never been adequately appreciated by the public at large. Suppose that at this very moment you were suddenly to be translated into your paternal great grandfather, living in England, in the year 1845. Suppose further that you were afflicted with a large, firmly set, abscessed lower molar tooth, the pain of which plagued you to the point of insanity. In your anguish you sought relief from an itinerant tooth puller, who, in this instance happened to be a truthful man, although if history is to be believed most tooth pullers were notoriously untruthful. Being a truthful man, he informed you that he could probably, with pelican and turnkey, remove the cause of your pain. The pain of the operation would be almost more than humankind could bear. You would in all probability faint. There was also the very fair chance that he might only break off the crown, leaving the roots so that you would still suffer for many days to come. The fee would be one shilling. Such would be the prospect that he would offer to you. However, being truthful, he would be obliged to inform you that a few weeks previously, a young fellow, (by name of Horace Wells) in Hartford, Connecticut, had discovered that by inhaling nitrous oxide gas, it was possible to render a patient oblivious to all pain connected with the extraction of teeth; that man had been delivered from his age-old enemy, pain, that the inhalation was not unpleasant and relatively safe. What monetary consideration would you have placed upon the benefit of anaesthesia had you been present under

such circumstances? What monetary estimate should the patient place upon it today? The fact that it is a *Dental anaesthetic* does not one whit lessen the associated danger, nor decrease the skill required for its administration. Dr. Willmott, whose active memory gives us a link with days now gone-by, has discussed with me his earliest recollections of anaesthesia. He has told me that the fee for extraction without an anaesthetic was 25 cents in those days, while, if they wished an anaesthetic, they doubled the fee and charged 50 cents. I submit that the benefits and associated dangers of anaesthesia should not be reckoned in pennies, either then or now.

The remedy for the conditions noted lies primarily within the ranks of our profession. Some short time ago our own Canadian Dental Journal printed the phrase: "scaling of teeth, amalgam fillings, extractions and other simple operations". You may search your own hearts at the moment, as to whether you consider the extraction of teeth, in all its ramifications, a sim-

ple operation. Personally, I have never found it to be so. The concept of the relative value of mouth surgery to other types of dental services must first be firmly established in the minds of the dental profession. More particularly, this concept must be held by the large body of dental teachers, who prepare the youth of our land for the practice of dentistry, a condition that by no means universally exists at the present time. Only through dentists will the public be educated to an appreciation of the care and skill required during surgical procedures in the mouth. Fortunately there is already a sprinkling of the laity who intelligently appreciate the situation and are glad to recompense us for a superior type of service rendered. That there are not more such patients is in large measure due to our own acquiescence with the *status quo*. We cannot render a twentieth century service for an eighteenth century fee. Professional pride should forbid us to render an eighteenth century service in the present age.

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"Happiness in life consists in something to love, something to do, and something to hope for." — Selected.

"Experiment is the sole source of truth. It alone can teach us anything new; it alone can give us certainty. But to observe is not enough. The scientist must set in order. Science is built up with facts as a house is with stones. But a collection of facts is no more science than a heap of stones is a house." — H. Poincare.

PRE-OPERATIVE PRECAUTIONS*

by GEORGE A. MORGAN, D.D.S., Toronto, Ontario

INADEQUATE common sense observations, failure to use the dental x-ray pre-operatively or breaks in technique of sterilization, have all, at some time, been responsible for serious post-operative results in what has appeared to be a case of straight extraction.

What Do We Mean by Common Sense Observations? Well—while one can hardly expect the general practitioner to attempt a general physical examination of the patient, considerable information can, however, be easily and quickly obtained by intelligent questioning and keen observation. Visual recognition of such conditions as diabetes by the acetone or sweet breath; hyperthyroidism, by the bulging eyes, or the swollen neck; hypertension, by the flushed face; various anaemias by the patient's colour, the dry mucous membranes, or the smooth tongue; the appearance of the gingivae in what is termed the pyorrhea of pregnancy; the differential diagnosis between an occupational blue line and the one caused by overdoses of syphilitic treatments, are all problems which the general practitioner can and should be able to recognize. Look at your patients—If you do, you will beware of square faced people, for they most frequently have end to end bites, and therefore dense bone; hence difficult extractions.

Small Crowns—Generally have large root formation.

Rotated Teeth — Generally have heavy bone over one or more roots, hence are difficult to remove.

Bicuspid and Molars—In long ovoid faced people these teeth generally follow the facial contour; their roots will be long and slender and therefore easily fractured.

In regard to retained roots, it is

important to remember that the most commonly observed retained root in the mouth is either the buccal or lingual root of the maxillary first bicuspid. An important point in root diagnosis! If a root is clearly visible in the dental x-ray, the chances are that it is a lingual root, and therefore difficult to remove. If it is difficult to visualize, it lies further away from the film, it is most likely a buccal root, and therefore easy of extraction. Retained roots are more accurately located by means of Michael Surgical Clips.

Deciduous Root Tips should be removed at an early age. Most frequently they are misinterpreted for retained roots of the permanent teeth.

Interdental Canals are frequently mistaken for retained roots.

It is most difficult in many instances to distinguish between a retained root and sclerotic bone. Generally however, the sclerotic area will have a characteristic bone density, not found in tooth structure.

OBSERVE YOUR SURGICAL FIELD

Oral mucous membranes which have a tendency to bleed should be investigated prior to extraction, for while they may be only the result of some simple form of irritation, such as the inflammation caused by calculus under the gum cuff, they may on the other hand be the warning sign of many forms of blood dyscrasias.

Whether to extract the offending tooth or teeth in the presence of acute alveolar infection, swelling and pain, is the problem which periodically confronts every general practitioner. Your problem then is to determine whether you are dealing with a toothache or a bone-ache. In all these cases the dental

*—A contribution to the Symposium on Oral Surgery presented at the Toronto Academy of Dentistry, March, 1945.

x-ray is invaluable. It will aid in the important decision as to whether pain is due to tooth or bone ache. Most cases of osteomyelitis, referred by dentists, are the result of operations during acute periods where the infection spreads widely and rapidly into the surrounding tissue. In all cases of acute infections, one of the first things a dentist should do is to take the patient's temperature. It is my opinion that many bad post-operative results would be avoided, if all acute cases were allowed to become chronic before extracting. An elevation in temperature, no matter how slight, will serve to convince the patient that the acute tooth or teeth should not be extracted. *Too many dental offices do not have thermometers.*

Regarding acute eruptions of third molars, in which the infection has involved the surrounding bone, the application of heat is indicated, and the pocket should be ventilated and flushed out with a mild antiseptic (Dentrox B or Mallophone) and then packed with a paste (Dr. Box's paste if you wish) to reduce the bacterial content of the pocket, until the acute inflammatory condition has subsided and the pain has ceased.

In most cases where heat is indicated in the third molar region, the most satisfactory method of application, by a suspended enema bag, the tip of the tube being placed in the area, the head being tilted over a basin, and the warm water being allowed to play on the indicated part.

The work of Crile on shock has been of special interest to the dentist, who should not overlook the fact, that the results produced by his surgical procedures are at times more severe and more dreaded by the patient, than the results from certain major operations. Initial surgical procedure should be confined to one-quarter of the mouth. The anesthetized field is therefore limited, thus minimizing shock. For example, in the upper right quadrant there may be two bicusps that could be removed much more easily than the

lower right first molar, or an impacted third molar. By performing the least difficult operation first the confidence of the patient is gained and the tolerance to infection increased. A good rule to follow is to limit extractions to one side of the median line, to allow the patient to have one half of the mouth in comfort. More extensive operations may be performed if the patient is hospitalized.

PRE-OPERATIVE DENTAL X-RAY

It is neither fair to the patient nor to yourself to attempt any surgical procedures in the mouth, no matter how simple it may seem to be, without supporting x-ray evidence.

Too often beautifully constructed bridges and other restorations are placed unknowingly, on unsound and infected teeth to the future embarrassment of the dentist. There are also many cases in which dentures are placed over cysts, residual areas of infection, roots and unerupted teeth. The x-ray will also illustrate where your burs have been going, your increased use of amalgam, and the tips of your surgical instruments.

It is advisable to discuss the prognosis with the patient so that he may be prepared for complications, but he should not be unnecessarily alarmed, and precautions should be dictated by common sense. For example: In cases of this type where the inferior dental nerve had been pushed out of line and close examination of your dental x-ray, discloses the fact that your lower third molar is unusual, first, in that it has three roots, secondly, in that the distal root turns directly toward the film, surely we are wise to advise the patient, re the possibility of lip paresthesia.

Hypercementosis is an excessive growth of cementum, and is seen in a dental ray as an enlargement on the root of the tooth. It can be distinguished from osteosclerosis by the periodontal membrane, which in hypercementosis will be seen to leave its normal path and extend itself to en-

velop the enlarged portion. There is a greater incidence of hypercementosis among vital teeth than among the non-vital teeth, which disproves the contention that infection is an important factor in the aetiology. About 50 per cent of all teeth in which hypercementosis occurs are bicuspid.

Pulp nodules are present in at least 80 per cent of teeth, centrals, cuspids, bicuspid and molars, and they can be demonstrated in about 50 per cent of all dental x-rays.

The unfounded claim that pulp nodules are a direct cause of the formation of stones elsewhere in the body, has resulted in extraction of many useful teeth. The incidence of pulp nodules among patients with gallstones, renal stones and so forth is, however, no greater than that of those whose physical examination gives essential negative results. We would therefore caution against the extraction of teeth, solely because of pulp stones, or hypercementosis in the hope of aiding systemic conditions.

Generally exodontia for children is completed under gas oxygen anaesthesia. It should be borne in mind that this procedure is frequently more hazardous than gas oxygen anaesthesia for adults. It certainly is a more nerve wracking procedure for the dentist. The same fee should be charged for children's dentistry as for adult's dentistry. If you are not doing this, then you are only cheating yourself.

In case of deciduous teeth, the x-ray will tell you the location of the crown of the permanent teeth, and its relationship to the deciduous roots. Please don't get the idea that the removal of the deciduous dentition is unimportant or easy; in many instances: malformations are often the result of lack of care in the removal of the deciduous teeth. The pre-operative dental x-ray, along with the clinical appearance and history form the pre-operative diagnosis for all the important surgical procedures to follow. If in doubt re anatomical findings, take an x-ray of the same area on the opposite side. This

is specially true of maxillary sinus problems. In differential diagnosis between large maxillary sinus and maxillary cysts remember that the maxillary sinus may extend as far forward as the lateral tooth.

ANAESTHESIA

Equally good results are obtained with different anaesthetics in the hands of different operators. It would therefore seem that the type of anaesthetic used is dictated purely by choice if the ultimate result is the same. Because of the need of additional surgical assistance, the rapidity of operation, the lack of haemorrhage control and the added patient risk, I am suggesting that better results, smoother ridges, and therefore in general, less post-operative discomfort, will be evidenced if we stick to local anaesthesia for everything except those cases, which we may term "straight extractions."

Injections can be made with the least organic disturbance when the patients are in a horizontal position. Solutions should be at body temperature, and should not be injected too rapidly. Tell patients re heart step up, due to adrenalin in solution. Remember that barbiturates increase adrenalin tolerance. Tolerance to adrenalin reaction will generally depend upon the obesity of the patient. The maximum dose of novacaine with adrenalin 1:37,000, that may be subcutaneously injected in adults who have been given a barbiturate, (for example, nembutal, one and one-half grains, pre-operatively), is 20 cc of 2% solution of a poor risk, and 40 cc of a 25% solution for a good risk. This is many times the maximum no. of cc's generally used in dental surgery. Dr. John S. Lundy, Head of the Section of Anaesthesia, Mayo Clinic, Rochester, Minn., reports in the staff proceedings February 7, 1945, the use of an antibacterial agent mixed with a local anaesthetic. The possibilities for the use of such a solution in dentistry are far reaching. For example, it may be possible to inject

directly into acute conditions. It may be used to inject directly into pericoronal abscessed area around the third molar, thus reducing the bacterial content of the pocket.

It is only common sense that a new needle should be used for each separate injection. If there is anything in the theory that bacteria may be transmitted from one area to another, and we all believe there is, then it is reasonable to suspect that at least some of our poor post-operative results are due to the direct transmission of bacteria from an infected area to an area of healthy tissue, which then becomes of itself, infected. I am suggesting therefore that if you have to extract an upper infected first molar, for instance, that you use two syringes, one for your buccal infiltration and one for your lingual injection.

PRE-OPERATIVE MEDICATION

The routine use of premedication in the extraction of teeth probably is not necessary, however, we have found it to be a most desirable adjunct, and it is given routinely in our office for all cases. Regardless of the skill of the operator, the patient's impression depends on the ability of the dental surgeon to avoid creating a nervous tension. Elimination of fear and apprehension by premedication, should therefore be a source of satisfaction to both the patient and the surgeon. Much of the discomfort experienced during the extraction of teeth is due to anxiety and not to the severity of pain.

Hypnotics, nembutal, one of the bar-

biturates, has proven most satisfactory pre-operatively, the drug should only be given in your office. It has prolonged effect in three grain doses— $\frac{1}{2}$ grain dosage for children. We just couldn't operate successfully without nembutal.

CONCLUSION

Here are seven fundamental rules to keep you out of trouble.

1. Observe your patient's general condition—skin colour—shape of face—temperament.

2. Observe your surgical field clinically. This includes the palpation of bone overlying the tooth or teeth to be extracted, colour of surrounding mucous membrane, and the rotation and position of teeth in the arch, in relation to normal position.

3. Always x-ray your surgical field pre-operatively.

4. Correlate your clinical observations, your x-ray findings and your patient's history. (Ask your patient about previous extractions.)

5. Pre-medicate in all difficult cases, and in all multiple extractions.

6. Confine initial surgery to half of either the maxilla or the mandible. Use separate needles for each injection. Use different knives and chisels for each infected area. This rule may at first appear to be one of over-caution, but common sense analysis and the decrease in post-operative tissue reaction will more than justify it.

7. Make surgical flaps for all difficult cases. In this group we would include all teeth with hypercementosed roots and all multi-rooted devitalized teeth.

"How can we expect a harvest of thought from those who have not had a seedtime of character."—Thoreau.

We must not lose sight of the fact that the national income is high at present, and at the same time there is a restricted market where workers can spend their money. When automobiles, radios, and other commodities again appear on the market, competing for the worker's dollar, will he still think of dental services as a "first" rather than as a "last"? Here is a real challenge for the profession. We should plan now to meet it.—Otto W. Brandhorst.

ORAL SURGERY*

by J. Fred M. Kennedy, D.D.S., London, Ontario

THE problem of after care should be as important to us as the planning and carrying out of the operation because the successful outcome of any surgical treatment, especially from the patient's point of view, depends largely on the amount of discomfort suffered after the completion of the actual operation. When a patient does us the honour of placing himself in our hands, we should consider it our duty to render any service necessary as painlessly as possible and this includes after care.

The most important things in the healing of a simple wound are the control of trauma and infection and to have a healthy coagulation of blood take place in that wound. After the extraction of a tooth we are not only confronted with a wound in soft tissue but one extending into bone as well and our immediate concern is to encourage a good blood clot.

A dampened sterile gauge sponge may be placed over the wound and held firmly in position for from ten to twenty minutes or the lingual and labial or buccal edges of the gingival tissues surrounding the tooth socket are drawn gently but firmly toward one another and held in place by means of fine sutures placed at the mesial and distal sides of the wound.

Patients should be ordered to forego the use of mouthwashes and solutions for some hours after extraction in order not to wash out or disturb the blood clot formed.

After the use of local anaesthesia an ice cap placed on the outside of the face over the area anaesthetized is very comforting during the time the anaesthesia is leaving due to the mild anaesthetic action of cold on the nerve endings.

Such drugs as acetyl salicylic acid

and codeine may be administered in doses sufficient to control any after pain following a dental operation and should the patient be nervously upset one of the barbiturates may be included.

All patients should be examined on the third or fourth day following extraction and surgery; this appointment should be definitely arranged and a careful check of the wound is made to see if healing is progressing at a normal rate; the mouth as a whole is examined for any signs of infection and it is ascertained if the patient is comfortable. If healing is not progressing normally or if the patient is suffering pain due to an infected or necrotic socket, treatment must be instituted and carried through regularly until complete healing has taken place.

One of the common unpleasant sequelae following the extraction of teeth is excessive haemorrhage.

We should understand something of the physiology of normal coagulation of the blood and to that end let us review briefly one of the recognized theories of clotting of the blood¹. Starling's latest textbook of Human Physiology suggests that the variety of theories advanced is conclusive evidence of the incompleteness of our knowledge of what really happens. However, the following is known—

- (1) Blood plasma contains all the substances necessary for coagulation.
- (2) Blood does not clot in normal blood vessels.
- (3) Coagulation is closely related to the properties of the colloids concerned in it.
- (4) Essential factors in clotting are primarily fibrinogen and thrombin; Secondary factors which govern the formation of thrombin

*Presented before the Toronto Academy of Dentistry as part of a symposium on Oral Surgery, March 1945.

are prothrombin, calcium salts and thrombokinase (thromboplastin).

- (5) In haemophilia the blood is only slowly coagulable or may even be incoagulable.

The Morawitz theory is reasonable and fairly simple compared to many others; it suggests that in a wound prothrombin from the plasma plus thrombokinase from damaged blood platelets in the presence of ionic calcium produces thrombin, an enzyme. Then the enzyme thrombin acting on fibrinogen, one of the blood proteins, forms fibrin which is precipitated in the form of fine threads, enmeshing the cellular elements of the blood and clinging to the periphery of the wound creating an efficient plug. After a time the clot shrinks squeezing out the clear plasma or serum and tends to draw the edges of the wound together.

Circulating blood according to Best and Taylor contains an anticoagulating substance Heparin which may be prepared from the livers of certain animals. Probably it is produced in this organ and thrown into the blood stream where it has been shown to neutralize the action of thrombokinase and prevent the formation of thrombin.

Now what are the aetiological factors in the failure of formation of a good clot; let us divide these into extrinsic and intrinsic factors.

(1) *Extrinsic*

- (1) Excessive trauma during operation—Spreading or fracturing the buccal or lingual alveolar plates.
- (2) Laceration of soft tissues which leaves a larger bleeding surface, the bleeding from these tears is sometimes very difficult to control.
- (3) After the use of solutions containing a high percentage of adrenalin there often is a surge of blood when the effect of the constricting agent wears off.
- (4) Disturbance of the clot by ex-

cessive use of mouthwashes or manipulations.

*Intrinsic Factors*²

- (1) A rare disease—haemophilia—it is supposed that in this disease the platelets are not as fragile as they are normally and therefore thrombokinase is not liberated to unite with prothrombin to form thrombin.
- (2) Lack of prothrombin possibly due to lack of absorption of Vitamin K. This fat soluble vitamin is absorbed from the small intestine in the presence of bile salts and is necessary for the production of prothrombin in the liver. Any disorder which interferes with the production or excretion of the bile salts into the small intestine interferes with fat metabolism and prevents absorption of vitamin K.
- (3) Very rarely if ever is excessive bleeding due to calcium deficit according to Starling³. For this to occur the calcium in the body would have to be reduced to a level incompatible with life.
- (4) Haemorrhagic states associated with the occurrence of purple spots on the skin—a symptom called purpura due to the fragility of the capillary walls. This may be associated with reduced blood coagulability due to lack of vitamin K; or to scurvy due to lack of vitamin C; or vitamin P (flavone) which causes increased permeability of the blood capillaries.
- (5) Reduction in the number of blood platelets whether due to reduced production or increased destruction.

Patients who have had excessive haemorrhage following any operation usually mention the fact beforehand or it is brought out in the history. Whenever any doubt exists it is well to do a clotting time; this may be very simply done as follows:

Wash the lobe of the ear thoroughly with alcohol and allow to dry. Clean a small watch glass and have it at room temperature. Puncture the lobe of the ear with a cutting needle or a mechanical stab and allow a drop of blood to fall on the watch glass. Move the glass slowly with a rotary motion between the fingers until the blood forms a firm jelly. Observe the time accurately from the appearance of the drop until coagulation takes place, normally this should be from $3\frac{1}{2}$ to 5 minutes. If the time is much longer than five minutes the patient should be referred to a competent blood chemist for examination and treatment.

The method we have adopted almost to the exclusion of all others to stop ordinary primary or secondary haemorrhages in patients not having any pathologic blood findings is application of pressure.

- (1) Immediately following an operation be sure all haemorrhage has stopped before the patient is dismissed. This is accomplished by the use of pads made of sterile sponges or by the use of sutures or both.
- (2) If bleeding recurs in the first twelve hours following, again use a firm pad or place sutures. We favour sutures because they are less trouble to the operator and patient and exert an even pressure drawing the margins of the wound together.
- (3) The wound or socket may be cleaned of old blood clot and firmly packed with $\frac{1}{2}$ inch sterile gauze saturated with 1/1000 adrenaline solution and left in for forty-eight hours. This treatment tends to force the margins apart and leave a painful wound requiring after treatment for a week or two.
- (4) A combination of packing and suturing over the pack may be used in very obstinate cases but these are few if proper precautions are taken.

CELLULITIS

Cellulitis is inflammation of cellular tissue often going on to pus formation, caused usually by bacterial infection. Infection from dental sources may cause this in any part of the mouth or face; it is most serious when it involves the cervical region—floor of the mouth or anterior portion of the maxilla. It sometimes follows extraction.

The local symptoms are spreading redness and edema of the skin over considerable areas followed usually by fluctuation as free pus is formed. Inflammation and swelling of lymph channels and glands in the area takes place at the same time.

General symptoms where pus is forming are fever, increased pulse rate, chills, malaise and a sharp increase in the number of polymorphonuclear leucocytes in the blood stream.

Severe cellulitis can often be prevented by early recognition and treatment. Local treatment consists in adequate drainage being established in any wound where infection may develop, light antiseptic dressings in an infected wound, attention to any surface infection around the teeth and hot moist applications externally over the area.

In general treatment adequate doses of sulphonamides under the observation of a competent internist or the administration of penicillin or both often reduces the process rapidly.

When pus forms and fluctuation becomes apparent, drainage should be established. If possible this should be accomplished by an intra-oral incision; if not an incision must be made in the skin and a blunt dissection carried out until pus is located and evacuated. Incisions through the skin should be planned so as to leave as little scarring as possible. Drainage should be maintained by the use of gauze drains, rubber dam or rubber tubing.

The manner of spread of pus from the floor of the mouth into the neck is along the fascial planes of the deep cervical fascia.

BONE INFECTION.

Infections of the osseous structures surrounding the teeth may be divided into periostitis, acute and chronic osteitis and osteomyelitis.

Periostitis or acute inflammation of the periosteum may be a spread from an infected periodontal pocket and always occurs in combination with an acute alveolar abscess.

Acute osteitis is an acute bacterial inflammation of bone which is rapidly circumscribed and walled off. It either forms free pus which penetrates the alveolar plate and discharges or subsides and becomes chronic with the formation of granulation tissue. In rare cases it may spread to the marrow causing osteomyelitis.

The process may begin as a subacute or chronic infection and remain so due to a low grade streptococcus such as strep. viridans.

Rarely instead of pointing and discharging these acute inflammations pass into the marrow spaces of the bone or along the inferior dental canal causing an osteomyelitis. As these conditions occasionally follow extractions of infected teeth we shall consider them further.

As in all acute spreading infections early diagnosis is important.

Roentgenograms usually show no change in the structure of the bony trabeculae for a week or two after onset of the disease, therefore, it is often necessary to make a diagnosis on clinical findings.

Blair and Ivy⁴ divide these clinical symptoms conveniently into—

- (1) The acute fulminating stage and
- (2) The more chronic stage of sequestrum formation.

The acute stage gives severe pain, swelling and fever with often some prostration, the teeth become successively sore and loosened and often pus exudes around them. Pus may burrow through the alveolar plate and the periosteum and out through the skin forming a fistula.

Following this stage sequestrum formation takes place and frequently

new bone is laid down preserving the continuity of the jaw. At this time x-ray examination affords considerable information.

The treatment of these conditions has been revolutionized by chemotherapy, full doses of sulphonamides, or penicillin or both should be instituted as early as possible; often if started early, the disease improves in from twenty-four to forty-eight hours and the symptoms have disappeared in a few days.

When the condition has progressed to pus formation, adequate drainage should be established promptly with as little surgical trauma as possible and regular irrigations with a mild antiseptic solution carried out; sequestra may be removed when fully separated, not before.

General treatment must be carefully attended to, if there is fever, bed rest and a liquid diet are given, general supportive measures are carried out and in rare cases it may be necessary to transfuse. Later the patient should have nourishing food and sunlight, vitamins A and D and plenty of fresh air.

By proper drainage and irrigations and removing sequestra as they are fully separated, it is possible to have the destroyed bone completely replaced by new bone and little if any deformity following. If there is a large loss of bone in the mandible and fracture appears imminent, splinting should be resorted to using any available teeth.

ANTRUM OF HIGHMORE

After treatment of cases involving the antrum of Highmore are rare but occasionally have to be dealt with. Tooth roots of upper posterior teeth may be fractured during extraction and either pass into the sinus through a diseased area already present or are forced in during attempted removal. If the root can be seen and removed through the existing opening well and good, if not the opening should not be enlarged, instead a wide flap is turned on the buccal side exposing the max-

illa well above the roots of the teeth and a window is cut in the maxillary wall of the sinus above these roots, large enough to have a clear view of the interior, through which the root may be located and removed. The flap is carefully sutured to place, an iodoform gauze pad is placed over the socket and left for forty-eight hours to try to get the blood clot to fill the socket and so close the oral opening.

If the antrum is healthy and infection has not been carried into it uneventful healing usually takes place.

If infection is present or is introduced, it is usually necessary to have an opening made in the inferior meatus of the nose and irrigate occasionally until the infection subsides.

Permanent fistulae between the mouth and the antrum rarely persist if the sinus is healthy but occasionally such persistence exists and must be corrected. If other teeth are present construct a base plate to cover the opening. This should be attached firmly by the use of clasps to the teeth nearby and should have a flat surface which does not protrude into the opening but exerts slight pressure on the periphery of it. If this fails after a few months a surgical closure may be attempted providing there is no appreciable infection in the sinus.

Dr. Risdon's technique is probably the most successful among the many operations suggested. A mid line incision is made in the roof of the mouth from the junction of the hard and soft palate, forward to the bicuspid area and carried in a circular manner, to include the opening to be closed, to the buccal side. This flap is raised with the blood supply (palatine artery) but the periosteum is left to assist granulation; an incision is made on the buccal side at gingival level parallel to the ridge and the tissue loosened. The portion of the palatal flap containing the opening is excised and the rest of the flap brought buccally and tucked under the loosened buccal tissue where it is firmly sutured. If infection develops in

the sinus, drainage must be established as before.

CHEMOTHERAPY.

The introduction of chemotherapy has revolutionized the treatment of certain infections in a period of a very few years. A great deal of careful scientific investigation has been done but as time does not permit even a brief review of this I shall try to sum up the conclusions agreed upon by the majority of investigators as to uses in treatment of dental infections.

- (1) The administration of sulphonamides is of definite benefit in the treatment of certain infections. This administration should be carried on by the patient's physician who is able to assess any unfavourable symptoms and take steps to alleviate them. If possible a competent blood chemist should check the blood level regularly as it is important to maintain seven to ten milligrams of the drug per one hundred cubic centimetres of blood in order to have maximum benefit.
- (2) The local application of these drugs has a definite place in dentistry. They should not be used routinely after extractions but should be placed in small amounts in wounds such as lower third molar sockets where we are not certain all infection has been eliminated.

In our office we have not sufficient faith to suture the drug in a wound without providing an opening for drainage and irrigation.

It is proven that they do retard healing to a certain extent but where there is infection present the beneficial results obtained counter balance the retardation of healing⁵.

There is always the possibility in local application that a patient may be sensitized against the drug; then should that patient need the assistance of it at a later date to combat an infec-

tion endangering his life he may be denied that assistance.

In dry sockets or in wounds containing much debris sulphonamides appear to be of little value unless a thorough debridement is carried out. In spite of certain findings to the contrary these drugs appear to be of most value when inserted into fresh blood and incorporated in the clot.

The organisms against which they are most effective are the members of the cocci group.

Certain organisms which do not readily yield to treatment by the sulphonamides are quickly reduced by penicillin. This drug produced from the mould *Penicillium Notatum* has unfortunately only lately become available for use in our hospitals and as yet not in sufficient quantity to carry on large scale scientific research. Most of the work done on it has been in the armed services where rightly the bulk of the production has gone. However, enough cases have been treated and reported to hold out the hope that it is one of the best antibiotics yet produced.

It is administered intravenously, at intervals or by the continuous drip method—intramuscularly or it may be made into a solution for topical application. So far no compound has been developed and marketed for oral administration, the gastric juice apparently renders it useless.

George W. Christiansen in the *Journal of Oral Surgery*⁶ reports "Penicillin is non-toxic, very soluble and unstable, its action is bacteriostatic to the extent that a large number of organisms are destroyed, in sharp contrast to the action of sulphonamides wherein there is a slowing up only of bacterial growth. It is most useful in the treatment of staphylococcic, gonococcic, pneumococcic and haemolytic streptococcic infections."

Dosage should be from 60,000 to 100,000 units per twenty-four hours and should be continued for forty-eight hours at least after symptoms have disappeared.

SUBACUTE BACTERIAL ENDOCARDITIS

I think we should mention a condition which is fortunately rare but which now can largely be prevented when caused from dental infection by close co-operation between the dentist and family physician; this is subacute bacterial endocarditis.

In many patients who have suffered from rheumatic fever the mitral and sometimes the aortic valve of the heart are left with small vegetations along their free edges; these vegetations form a splendid location for the implantation and growth of an organism such as *streptococcus viridans*. Such an inoculation may take place during the transient bacteremia produced after the extraction of infected teeth. This growth produces a granulomatous mass along the free edges of the heart valves and upon the endocardium of the left auricular wall. Intravascular clots form and eventually pieces of the clots and granulation break loose and pass into the blood stream. They are carried to distant organs where they lodge in the first vessel too small to pass them, shutting off the blood supply and causing further infection. This thrombosis progresses until death ensues. The disease has been uniformly fatal in from four to fifteen months.

Now in cases that give a history of rheumatic fever and have a valvular lesion we routinely administer sulphonamides or penicillin or both, previous to extraction of infected teeth and build up a sufficient concentration of the drug in the blood stream to immediately destroy the organisms in a transient bacteremia before they have a chance to locate themselves on the damaged valves.

In closing I wish to suggest that we avail ourselves of all the knowledge we are able to in the practise of our profession, that we assume that responsibility which is rightfully ours and do not hesitate to seek assistance elsewhere for our patients immediately we think it beneficial to them. I have

found that shared responsibility makes for satisfied patients, an easy conscience and sound sleep.

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REPORT OF A CASE OF DESQUAMATIVE STOMATITIS OF UNKNOWN AETIOLOGY*

by Captain W. F. Walford, C.D.C., Pointe Claire, Quebec

Patient, white, male, aged 21.

His admission note showed "chronic ulcerative stomatitis for the past 1½ years". Patient was admitted for investigation and prescription.

Neither the family history nor the personal history showed anything beyond the more common childhood diseases and accidents and so is not included in this report.

Present Illness: About 3 years ago as a civilian he had a couple of cankers that cleared up readily. About 2½ years ago he noticed a series of shallow ulcers in his mouth which cleared up in a very few days after treatment with gentian violet. In Newfoundland, about 2 years ago his gums and mouth became sore, the regional glands were swollen and tender and eating became painful and difficult. Mouth washes were ineffective. He went to sea and then was hospitalized for four weeks in a military hospital. He returned to sea, was in Canada for a short time and then went to sea again. The stomatitis fluctuated in intensity but never cleared up. At the time of admission to this hospital he was unable to brush his teeth because of pain and bleeding and his teeth were aching.

He reported that his dietary habits changed somewhat after entering the service in that he ate fewer vegetables

and less meat. He has been taking 2-3 teaspoons of Naval issue cod liver oil daily for the past 1½ years.

An amusing note is injected into his history for he reports, "the only thing that gives any relief is alcohol". However, it should be added, that he only took it in relatively small amounts.

Positive physical signs on admission:

1. T.P.R.—98-88-20
Ht. 5' 8" Wt. 175 lbs.
2. Skin of hands, forearms, scalp, dry.
3. Reflexes hyperactive.
4. Mouth: unclean odour, few carious teeth and some tartar (slight). Gums soft and reddish around dental margins. There were multiple irregularly shaped ulcerative lesions averaging 1 mm. in width, some clean, some with whitish crests, some on reactive bases, others pale. These were present on the buccal mucosa, in the labial grooves and on the gums. The lips were dry with some cracking.

The impression was that this was a case of ulcerative stomatitis of unknown aetiology.

Consultants were called in and a complete laboratory examination was made. The following are summaries of some of the reports.

R.B.C.—5,340,000

W.B.C.—5,900

*This research work was carried out under the auspices of the Canadian Dental Corps at St. Johns, Newfoundland.

Differential Count—Neutrophils 59%, Eosinophils 3%. Monocytes 3%. Sedimentation rate 18 mm. Hgb. 98%. Urine analysis showed rare pus and epithelial cells. Gastric analysis was negative. Maz. smears showed varied organisms, no fungi seen, and only the usual mouth flora. No fungi were grown.

His state of nutrition was investigated and the impression was that a riboflavin deficiency was present from observation of the buccal mucosa, the cheilosis and the marginal atrophy of the tongue but it was reported that there was no corneal invasion nor was there seborrhic dermatitis of the face to substantiate this diagnosis. Following this consultation a dietary supplement of 15 mgm. of riboflavin was given.

The E.N.T. consultant reported that the ears, nose, nasopharynx and throat were clear with questionable tonsils. His diagnosis was ulcerative stomatitis of unknown aetiology and we recommended a high vitamin diet and C.D.C. mouthwash T.I.D.

The following is the formula of the C.D.C. mouthwash, to be labelled poison.

Fowler's solution—100 cc.
3% H_2O_2 —670 cc.
10% $Na_2 HPO_4$ —10 cc.
10% $Ca Cl_2$ —15 cc.
10% $Mg Cl_2$ —15 cc.

The urology consultant reported that there was no urinary focus of infection. Radiographic examination showed no evidence of parenchymal disease.

Prior to his hospital admission which is here reported he had all manner of treatment both in and out of the service. These treatments ran the gamut of topical application of silver nitrate, gentian violet, and chromic acid; mouth rinses of sodium perborate, hydrogen peroxide and C.D.C. mouthwash. It must be said that he is a very cooperative patient for his history sheet shows that one treatment given was swilling cod liver oil in his mouth. This might seem to be a

rather unique treatment but it had a scientific foundation, namely the topical application of vitamins. This gave him comfort, possibly due to the coating of the ulcerated surfaces by a film of oil. He has had multiple vitamin therapy; he has had routine periodontal treatment. The most effective treatment was penicillin pastilles held in the mouth between meals. This brought about rapid healing of the ulcerated surfaces.

A week following his admission he was referred to this clinic for dental consultation. He had many small ulcerated areas approximately 2-3 mm. in area on the buccal mucosa and slight marginal gingivitis in areas of neglected oral hygiene. There was no appreciable mouth odour. The tissue appeared glazed and was readily elevated with air from a chip blower. Gentle rubbing readily produced desquamation of the surface. The impression was that this was a case of desquamative stomatitis with secondary infection of the gingivae.

To check on this diagnosis one side of the mouth was scaled and the other side left as it was to serve as a control. The following morning the gingivae on the side which had been scaled had cleared up entirely thus giving confirmation to the tentative diagnosis of secondary infection by mixed mouth organisms. This had been largely the symbiosis of Vincent's when he was first admitted but under C.D.C. mouthwash and penicillin therapy the anaerobes had largely disappeared. There was no alveolar bone loss which is characteristic of a chronic Vincent's angina so we may infer that the secondary infection which was present over the two year period was by mixed, oral flora.

Biopsy specimens were obtained of both the buccal mucosa and gingival tissue and forwarded to Canada for diagnosis. The pathologist's report was that the sections corresponded closely with the condition described by Lester R. Cahn in his textbook of Oral Pathology as non-specific desquama-

tive gingivitis and as diagnosed by the dental consultant.

He (Cahn) reports that "this condition is of unknown aetiology and is characterized clinically by the exfoliation or destruction of patches of covering epithelium with the buccal surfaces being involved more frequently than the lingual surfaces. The lesions are occasionally painful and bleed easily. The gums have a pale unhealthy colour, the buccal tissues are erythematous and when pressed, leave an indentation similar to the pitting of oedema. The interdental papillae are oedematous. The tissue appears to be covered with the thinnest possible layer of epithelium and has a sticky mucoid secretion covering it. The surface epithelium can be removed by rubbing and blasts of air will raise the epithelium from the surrounding structure. Occasionally small haemorrhagic bullae form, breaking in time and leaving a denuded area."

"Histologically the epithelium appears fragmented and instead of showing an orderly arrangement of the various layers the tissue assumes a papilliform pattern with superficial cells continually being cast off. There is no basal layer, and the junction between epithelium and stroma is vague with slight infiltration of the stroma principally with lymphocytes."

There was complete remission for a

period of three weeks but a few small desquamated areas have reappeared. Tests have been carried out for presence of a contact allergy with negative results. He has now been sent to Halifax for investigation of the possibility of an ingestion allergy being contributory.

This case is of interest because of its rarity and because of the extent of secondary infection that occurs thus obscuring the true condition and making a correct diagnosis, more difficult. Also, in many ways it is similar to a vitamin deficiency and may readily be confused with a riboflavin deficiency.

Since at present the aetiology is unknown treatment is symptomatic. Penicillin therapy has proven of great benefit in reducing infection of the ulcerated areas. Some form of lip salve to reduce discomfort due to cracking of the lips and a soft diet to reduce tissue abrasion is advised until all active lesions are healed. Scrupulous attention to oral hygiene is necessary in order to reduce plaque formation and increase in local bacteria count.

It is hoped to report further on this case when the results of the ingestion allergy tests are available.

(Thanks are extended to Surg. Lt.-Col. R. J. Wilson, R.C.N.V.R., and Surg. Ltd. Lee Steeves, R.C.N.V.R., for their cooperation and help in this case.)

*"A gum-chewing girl
And a cud-chewing cow—
There is a difference,
I will allow.
What is the difference?
I have it now—
It's the thoughtful look
On the face of the cow"*

"I will go anywhere provided it is forward."—Livingstone.

PIN INLAYS*

By R. G. HEMMERICK, Kitchener, Ontario

THE use of the pin inlay, while by no means a new development in inlay technique, seems to lack the popular favour which it rightfully deserves. For many years it has been used in one form or another, first, I believe, as a heavy post or dowel which was inserted into a root canal and integrated with the inlay proper, and thus used only in non-vital teeth.

Later, pins of iridio-platinum of from 21 to 24 gauge were inserted into drilled holes in the teeth and these integrated into the casting thus al-

lowing the technique a much wider range, and permitting their use on vital teeth, and as a part of almost any type of preparation.

The latest development, which greatly simplifies the technique, is the use of plastic pins which become part of the wax pattern and are eliminated from the mould with the wax. Credit for this latest development is given to Dr. J. T. O'Leary in co-operation with The Williams Gold Refining Co., who manufacture the plastic pins, (Fig. 1). The pin allows the greatest variety of uses, due to the fact that it provides its own frictional retention. It may be used with one or two other pins as the sole means of retention, as in a $\frac{3}{4}$ crown, or in conjunction with other types of retention as in an MO or DO, (Fig. 2).

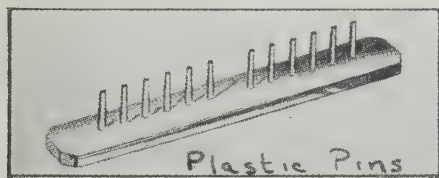


Fig. 1

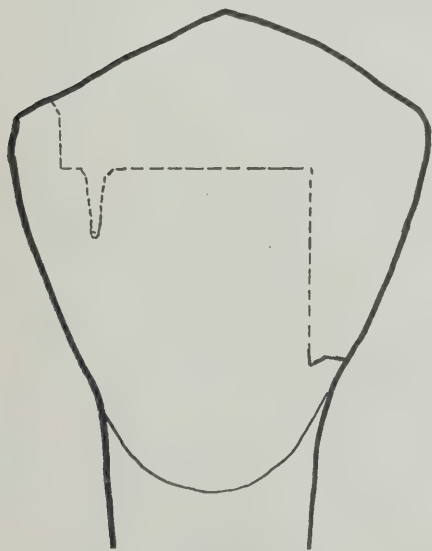


Fig. 2

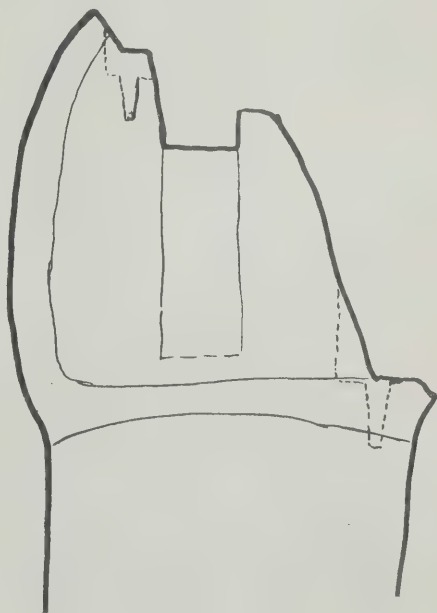


Fig. 3

*Presented as a lecture clinic before the Academy of Dentistry, Toronto, Winter clinic.

Advantages

1. They may be used where no other type of retention is easy to obtain, as in the case of broken buccal or lingual portion of bicuspid or molars, (Fig. 3).
2. Where the mesial or distal incisal angles or both are broken, not allowing parallel walls for retentive grooves, (Fig. 4).

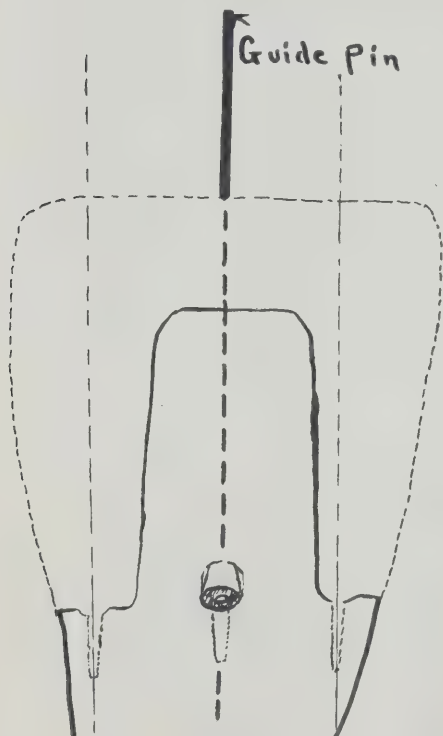


Fig. 4

3. Where the tooth is short or poorly shaped.
4. It is not necessary to remove a great amount of tooth structure in preparing abutments.
5. An MO or DO may be used as a bridge abutment if a pin or pins are incorporated into the preparation.
6. The pin inlay may be made by the direct, indirect, or semi-direct method.

Important Points in Preparation

1. Pins should be placed as far apart

as possible in order to provide maximum retention.

2. The pin, or pins, must be parallel to each other and to other retentive walls. In order to simplify the preparation of these parallel lines, a guide-pin is used. The guide-pin should be waxed or cemented to the labial surface of the tooth, parallel to the long axis of the tooth mesio-distally, and to the middle labial third of the crown labio-lingually, (Fig. 5). All lines and pin holes can easily be paralleled to this guide-pin. This is the most important help in preparing pins inlays.

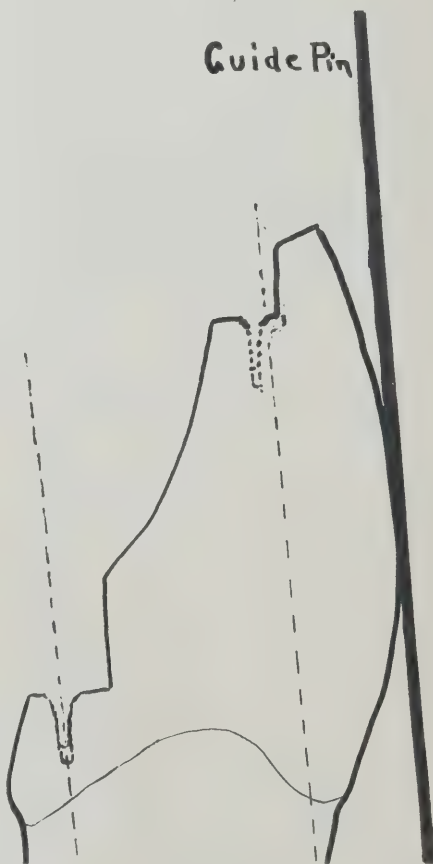


Fig. 5

3. In drilling holes care must be taken to avoid the pulp. An X-ray should be procured before any preparation,

and any abnormalities of tooth or pulp noted. Depending on the surface of the tooth to be drilled, the depth of the pin hole may vary from 1 to 2½ mm.

4. Care must be taken to avoid breaking through the side of the root where there is a constriction of the root just below the pin hole.
5. Pin holes should be entirely within the dentine, just inside the enamel line.
6. Sufficient tooth structure must be removed to allow enough thickness in the inlay so that it will not buckle under stress.

To Prepare the Pin Hole

1. Prepare a flat seat at right angle to pin hole with a No. 559 bur.
2. Spot the pin hole in centre of seat with a No. ½ round or a spear point bur.
3. Use a 23 gauge twist drill to the depth desired up to 2½ mm. paralleling the guide pin. If the twist drill is unobtainable, drill the hole with a No. ½ round bur.
4. Follow with a No. 700 S.S.W. tapered fissure bur with the end smoothed to prevent drilling deeper than guide hole.
5. Finish with a No. 600 S.S.W. tapered reamer, with a smoothed end.

If the pattern is to be made directly on the tooth, place plastic pins in the holes and wax by your favourite method. After investing place the mould in a closed bottle of chloroform. Place the closed bottle in warm water at about 140 degrees for half an hour. Pins and wax will be completely eliminated. Then burn out and cast.

If the pattern is to be made by the semi-direct method, place the plastic pins in the pin holes and take an overall wax impression, withdrawing the pins with the wax. Make a hard-core cristobolite model and dissolve wax and pins in warm chloroform. Wax up and invest.

If the pin inlay is to be made by the indirect method, place the plastic pins

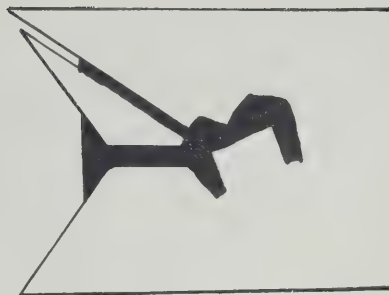


Fig. 6

Air vent on a large Casting

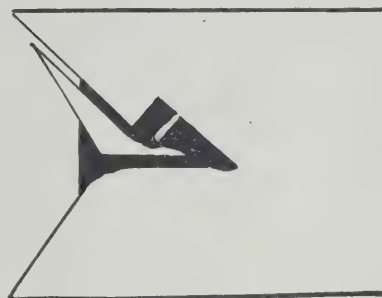


Fig. 7

Air vent on a pontic casting where the flow of gold would break off the slender investment pins if permitted to flow directly against them.

in the pin holes and take the impression in the usual way, preferably with Dietrichs Impression material. Paint with Aquadag, heavily over the pins, and copper plate. The pins can be removed from the model and used again in the waxed up pattern. Invest and cast, (Fig. 6—Fig. 7).

Cementing Pin Inlays

In cementing the pin inlays it is important that the pin holes be filled with cement. This is difficult to do with an instrument. The pin holes should be thoroughly dried with paper points and air. Just before the cement is ready to place, fill a conducto tube, (made by the Condit Co.), with cement, and, placing the small end of the celluloid tube to the base of the hole, squeeze the cement

from the tube. In this way the hole will be filled from the base to the opening and no air will be trapped. the most satisfactory. Some cements seem to resist the displacing action of the pin entering the hole, making it difficult to seat the inlay perfectly.

In our hands Fleck's cement proved

ANNOUNCEMENTS

Refresher Courses for Retired Dental Officers

Through the cooperation of the C. D. A. Council on Dental Education and the Canadian Dental Corps, courses for Officers retired from the Armed Services will be announced in the Journal as submitted by the different dental schools. Members who are now serving in the Military Services, as well as those who have been retired, are requested to observe future issues of the Journal for further announcements.

Your attention is drawn to the fact that any payments, maintenance grants or fees, under the Post-Discharge Re-establishment Order, are deductible from your Re-establishment Credit. Transportation costs to and from the dental school you choose to attend are payable by yourself.

Correspondence relating to courses should be directed to the Dean of the school concerned.

Joint C.D.A. and O.D.A. Meeting

The joint meeting of the Canadian Dental Association and the Ontario Dental Association will be held at the Royal York Hotel, Toronto, May 27-30, 1946.

University of Montreal—Faculty of Dental Surgery

A Refresher Course in Minor Oral Surgery and Anaesthesia was given in the new buildings of Montreal University, from October 8 to 12. This course offered to the members of the Canadian Dental Corps was a success. Twenty practitioners were present.

In December, this Journal will announce the dates of other courses which will be offered in Preventive Dentistry, Operative Dentistry, Ceramics, Dentistry for Children, Root Surgery and Therapy, Removable Partial Denture Prosthesis, Crown and Bridge Prosthesis, Periodontology, and Orthodontics.

Midwinter Meeting Chicago Dental Society

Since government restrictions on travel and conventions have been removed the Chicago Dental Society plans to conduct its 1946 Midwinter Meeting at the Stevens Hotel February 11 to 14.

JOSEPH B. ZIELINSKI, President
ROBERT J. WELLS, Secretary

You are not in competition with the man across the hall, down the street or around the corner. You are in competition only with yourself. Beat your own score. Dentistry is medal play—not match play. Bobby Jones always tried to beat par for the course. He knew the match would take care of itself. — James Robinson.

The Forum

ORAL DIAGNOSIS PROCEDURE

By HAROLD J. LEONARD, D.D.S., B.A., Columbia University, School of Dental and Oral Surgery.

DIAGNOSIS has a somewhat different connotation in dentistry from that in medicine. In medicine it is (1) "the art of distinguishing one disease from another. (2) the determination of the nature of a case of disease" (Dorland). In dentistry it has these meanings too, but it also has a broader meaning more nearly in line with the root terms *dia* (through) and *gnoscere* (to know or understand). The emphasis is not so much on identifying disease since most of our patients have only the easily recognizable diseases, dental caries, gingivitis, periodontoclasia, pulpitis, and periapical infection. The emphasis in oral diagnosis is on understanding what is proceeding in the mouth which is now or may in the future lead to disease or defects. Treatment planning or deciding what may be done to restore and maintain oral health, function and beauty is perhaps not inherently a part of oral diagnosis but practically the two go together so as to be included under one term. The oral diagnosis includes the examination to note all defects in the mouth, tests for obscure or indeterminate conditions, a comprehensive correlated study of the findings and a comprehensive plan of treatment with notation of possible contingencies.

The examination of the mouth should be a very systematic procedure. An outline should be used so as to insure that no point is omitted. Preliminary questioning should elicit information about health history, dental history, experience with dentistry, special

needs and desires, present dental complaints, etc. Full mouth x-rays including bite wings of posterior teeth, and study casts should be available at the time oral examination is made. The examination should start with an inspection of the mucous membrane and tongue, followed by a study of mouth hygiene both as regards unhygienic conditions and possible injury from home care methods. The gums and the alveolar bone are then thoroughly examined after which the occlusion is studied. Missing teeth, mobile teeth, faulty contacts, traumatized teeth, shifting teeth, etc. will be noted here. Replacements such as bridges and dentures are studied as to hygiene, function and appearance. Faulty appearance, speech defects due to teeth, injurious mouth habits, and anatomical and physiological defects if any are ascertained. Then the individual teeth are examined with explorer, magnifying lens and x-rays to note cavities, root canal and periapical abnormalities, and restorations, each restoration being studied as to its essential qualities.

Tests which may be indicated are made at this point. These may range from pulp vitality test or removing a bit of tissue for microscopic study to inquiry as to diet or reference to a physician for special medical examination, depending on the clues obtained in the examination.

The plan of treatment may be made up as the examination proceeds or afterwards after all the data are as-

sembled depending on the complications in the case and amount of study required. Every defect should have a treatment checked against it although in many cases this will often merely be "watch" or "no treatment recommended". Unless this procedure is followed it is almost inevitable that some defect will be missed and left untreated with possibly disastrous consequences.

The patient should be advised of contingencies. The dentist is responsible for informing the patient of the probable bad effects of putting off treatment and letting the dental condition slide. It is also well to inform the patient of difficulties likely to be encountered during treatment and of requirements for care in the future after treatment is rendered. So good a time for patient education in dentistry will never recur as this when the patient has his own dental problem before him with all of its ramifications.

In order to render a thorough oral diagnosis service routinely and economically it should be done with a trained secretary. The secretary is trained to give the initial interview in which the preliminary data are obtained and which acquaints the patient with the office routine. The dentist then sees the patient for thirty minutes for getting the x-ray series and taking colloid impressions for study casts. When the x-ray set and study casts are ready an hour appointment is arranged at which time the complete oral examination is made and dictated to the secretary. In most cases this is sufficient time to obtain all the necessary data, plan treatment and note possible contingencies. In complicated

cases more time may be required for laboratory tests and study. In any event the appointment time required by the dentist with the patient is one half hour and one hour period. The trained secretary can then prepare the diagnosis for presentation to the patient and spend as much time as the patient needs in explaining all points of the diagnosis and educating the patient in regard to dental matters. When the patient is satisfied and ready to proceed the secretary makes the necessary business arrangements. At the next appointment with the dentist he can immediately take up the first steps in his outlined treatment with no waste of time.

This outline of diagnostic procedure is presented because dentistry is suffering from the lack of it. Time and again one sees exquisitely wrought restorations and replacements in mouths in which teeth are doomed on account of disease which was not recognized or provided against by the attending dentist. Extensive knowledge of dental pathology and expert craftsmanship in dentistry are not enough even when combined, unless the diagnostic procedure is adequate to bring all significant data to view. Unless the thorough diagnostic procedure is made routine and is so administered that a minimum of the dentists' time is required for it, it just is not done. The fact that it is not done accounts for the many, many patients in the hands of conscientious dentists who needlessly lose their teeth during the course of their lifetime from preventable disease.—*From Committee on Co-operation, American Assoc. of Dental Editors.*

"In deciding whether a given health procedure shall be conducted by the department of health directly or by individual medical practitioners or other agencies, the primary consideration shall be the welfare of the community. Relative cost, relative efficiency, and the practicability of adequate supervision must be considered. Where these factors are reasonably equal preference should be given to a program which decentralizes health procedures so as to enlist the private practitioner in their application." — Declaration of Attitude, in the Am. Jour. of Public Health, per Jour. of Mich. S. D. Soc.

CAST SPACE RETAINER TECHNIQUE

by R. M. ERWIN, Jr., D.M.D., Portland, Oregon

METALLURGY

12 Dwt. of sterling silver, and one pickled penny. Flame the penny to cherry redness and then drop into HCL. Alloy on a charcoal block; first, fuse the silver, place the penny on top and fuse the entire mass, allow to cool slightly, turn the mass over and re-fuse. Repeat three or four times; stir with a slate pencil if desired. As the mass is cooling the last time at a semi-congealed state, divide it into seven or eight small fragments with the slate pencil. Re-fuse these separately into conveniently small ingots and when still cherry red drop into HCL again and put away until needed. Approximate cost about 65 cents an ounce.—Dr. Walter C. McBride's Text "JUVENILE DENTISTRY." (Note: This metal is also used extensively for inlays in pedodontia in such cases that inlays are required due to extensive tooth destruction or for such surfaces that amalgam is precluded because of insecurity or later devitalization.)

Space Retainer Technique:

Realizing the more ready ability of the average general practitioner with his waxes and casting techniques over his ability to make satisfactory orthodontia bands which might be used for space retaining attachments, and desiring to influence men to more readily urge the need of and provide space retaining appliances, the following technique is offered. For the most part the principles, in general, are closely related to Dr. Willit's technique for such appliances.

1. All teeth which are to support or otherwise receive attachments for retention of the appliance are subjected to the usual "copper band" with impression compound technique. Care should be exercised when more than one tooth is to be reproduced with the copper band and compound that the bands be parallel to one another and the

natural direction of their removal co-incident with the long axis of the teeth. Also be sure that the band is seated subgingivally.

2. Chill thoroughly, carefully remove slightly from the tooth or teeth (to free it so that it will more readily come off later), reseal it completely.
3. With the band, or bands, in place on the anchor tooth, or teeth, a section tray is filled with warm plastic compound and firmly placed over the objective area and *chilled* especially well.
4. Remove the section impression carefully to minimize the distortion and also *bring with* the section impression the copper band impressions of the individual anchor teeth. Chill additionally.
5. With a small pellet of cotton held in tweezers carefully push the individual impressions down to their impression areas of the section impression. Box the ends with thin layers of impression compound.
6. With a primary mix of casting investment, pour an investment model. Fill the individual anchor tooth impressions first being careful of bubbles; then fill the entire mould. Time from beginning in the mouth to the completion of this step 10-15 minutes.
7. Allow the investment to set thoroughly. Then remove the section impression with dry heat. Trim away carefully the investment material to the full depth of the copper band gingivally (to expose the subgingival tooth surfaces.) Then with dry heat remove the copper bands and impression material from the anchor teeth. Carefully trim away the approximating teeth to the anchor teeth (except two adjacent anchor teeth) that are to be waxed up so that

the approximating surfaces may be readily accessible. Time: 10-15 minutes, excluding setting time of investment.

NOTE: Complex retainers which restore occlusion in any way, either on an anchor tooth or in the edentulous area should be mounted on a bridge articulator with opposing arch in stone.

8. Wax up the anchor teeth to desired contours and neat margins; compression of wax not necessary. The wax can be flowed on with a carving instrument at convenient temperatures to "draw" the wax as ink after a pen point. Wax wires of varying gauge can be rolled out between warm glass slabs. Ordinary denture set up wax is used for the wires *only*. Time: 15-20 minutes.

9. Trim down excess of model to facilitate spruing and investing; sprue conveniently, invest with primary mix and secondary mix. Cast after required elimination

time. Maintenance of cherry red sprue hole is not essential although the casting ring should be so heated as to assure complete burning out of wax and what expansion is needed and obtained. Time: 5-10 minutes.

10. Remove, clean, heat to cherry redness by conduction of heat from the button to the casting (to avoid burning margin) and pickle by dropping into HCL. Time: 5 minutes.

11. Finish with stones, sandpaper discs, etc.; polish with pumice, tin oxide, and gold rouge. Time: 15-25 minutes.

12. Clean appliance with chloroform, clean anchor teeth, sterilize tooth surfaces to be covered (Howe's ammoniacal AgNO³ or phenol) and cement to place with crown and bridge cement or Petralit. Time: 15 minutes.

TOTAL TIME: 1 hr. 15 minutes—1 hr. 45 minutes or 2 hrs. depending on complexity of appliance.

EFFECT OF ACID BEVERAGES CONTAINING FLUORIDES UPON THE TEETH OF RATS AND PUPPIES

J. S. RESTARSKI, D.D.S., M.D.S., R. A. GORTNER, Jr., M.S., Ph.D.,
and C. M. McCAY, Ph.D., Bethesda, Md.

Summary of paper in Jour. of A.D.A., June, 1945.

1. Severe destruction of the enamel on the molars of white rats was produced by allowing the animals to drink a popular soft beverage for periods of five days or more. With prepared solutions with the same sucrose and phosphoric acid concentration and the same pH as the commercial product, similar results were observed.

2. Preliminary observations on six puppies showed that consumption of acid drinks also produced gross and microscopic changes on their deciduous teeth.

3. The inclusion of 1 to 20 parts per million of fluorine (as sodium fluoride)

in the acid beverage decreased, but did not prevent completely, the destruction of the enamel in the majority of rats studied. Within the limits tested, no apparent differences were observed in the protective action of different levels of fluorine.

4. The presence of sucrose in the acid drink aggravated the effect of the acid. The molars of rats receiving a 10 per cent sucrose-phosphoric acid solution were much more affected than those of a comparable group receiving an equal amount of saccharin-phosphoric acid solution of the same sweetness, viscosity and acidity.

DENTAL TECHNICIANS AND ILLEGAL PRACTICE

Condensed from Editorial by F. W. C. in New Zealand Dental Jour. Jan., 1945

AS A premise on which to base subsequent argument, it may be stated categorically that, to a greater extent than ever before, and with the knowledge of the Department concerned in the administration of the Dentists Act, technicians are making dentures for the public in defiance of the law.

We shall limit our discussion to two comparatively recent developments which make a solution even more urgently desirable than before. The first concerns trends in dental education. As members will know, recent amendments to the course for the degree of Bachelor of Dental Surgery have strengthened the scientific basis of a student's training. If possible, it is more broadly based than before on the medical sciences; and especially will greater emphasis be placed on dentistry as a health service, with all that the term involves, rather than as a mere skilled or even exacting craft. This immediately raises the question as to whether greater public service could be rendered by some degree of division of labour within the profession as for example, by the delegation of some of the more purely technical work to less highly trained personnel, with or without supervision.

The dental course is now a somewhat rigorous scientific discipline, and on economic grounds alone it has reached its maximum in terms of time consumed. Dental educators therefore will not wish to burden students unnecessarily with the acquisition of skills which they may not subsequently be called upon to exercise. Dental educators are not concerned as such with the administration of the Dental Act; but they do want to know, among other things, who are to make dentures—dentists, technicians, or both. The answer at present is presumably—both.

The second factor which has now

become relevant to our problem is the growth of a State dental service.

As an easy solution of the present illegal performance of prosthetic work, we have even heard it suggested that when the war is over, the State service will solve the problem by the very simple expedient of employing or at least licensing all these technicians to do all or part of prosthetic work, in its own clinics or elsewhere, as part of its public dental benefits scheme. While these and similar schemes are incubating, we are to put our blind eye to the telescope. But this is altogether too naive. We cannot bear to contemplate the spectacle of the State filling teeth, up to the age of eighteen, or even twenty-eight, and then extracting them and inserting dentures—free or otherwise. Again, it has been thought that the State would be bound to exclude technicians from participating in any public prosthetic service, the effective weapon here being payment out of the public funds to registered dentists only.

A person who breaks the law by selling adulterated food is prosecuted on the Department's own initiative. It is a reasonable inference that if the Department and the public generally really thought that the making of dentures by technicians was a serious evil, it would be suppressed promptly. Since the Department apparently does not take this view, the relevant clause in the Act might as well not exist.

In attempting to end this stalemate, we would urge dentists to consider dispassionately the grounds on which they claim a monopoly of prosthetic work. Are dentures made by the majority of registered dentists so much better than those made by technicians that the public needs legal protection? Are there any registered dentists who permit technicians in their employ to deal directly with patients when they

find it profitable or convenient to do so? Would the status of dentistry as a profession be improved if we relinquished our legal but illusory monopoly in prosthetic dentistry, and either abandoned this field altogether

or let our efforts in it stand on their own feet?

When perfectly frank and soundly based answers to these and similar questions are forthcoming, the solution to our problem will be in sight.

PENICILLIN — ITS PRESENT STATUS IN THE TREATMENT OF INFECTIONS

By CHESTER S. KEEFER, M.D.

Professor of Medicine, Boston University, and Director, Evans Memorial Hospital, Boston.

Condensed from Transactions and Studies of the College of Physicians of Philadelphia, April 1945.

IT CAN be said without reservation that penicillin is the most chemotherapeutic agent that has been discovered up to the present time. When one makes such a statement it is well to document it. In the first place, it is a substance of extremely great antibacterial power. One milligram of crystalline penicillin is capable of inhibiting the growth of staphylococci in 82.5 litres of broth. It is non-toxic in maximum therapeutic doses in man. It is highly effective against a wide variety of microorganisms of the gram-positive group. No other known agent can do as much.

There are two salts of penicillin available for clinical use, the sodium and the calcium salts. They are both equally effective therapeutically and they can both be used interchangeably. The commonest route of administration is the intramuscular, and it is the route of choice. Injections may be given intermittently or continuously. It may also be given intravenously, and topically into the serous cavities, joint cavities, or into the subarachnoid space. At present the use of penicillin by mouth is wasteful, uncertain and expensive, when compared to other routes of administration.

The daily and total dose will depend upon the type of infection, its location, the presence of bacteremia, the age and the clinical condition of the patient and the course of the disease. The outlook in individual cases will depend to some extent upon such factors as the source of the primary in-

fection, the age of the patient, the period at which treatment is begun and, in some instances, the accessibility of the infection to surgical treatment. In all cases with bacteremia the treatment should be continuous for two to three weeks and enough penicillin should be given daily to bring the infection under control.

Patients with otitis media and mastoiditis respond to penicillin treatment most favourably. Tonsillitis resulting from haemolytic streptococcal infection responds very promptly to the use of penicillin. Treatment should be continued for at least 5 to 7 days in order to prevent relapses. The pneumococcus is extremely susceptible to the action of penicillin *in vitro* and when patients with pneumococcus lobar pneumonia receive penicillin, the outcome is extremely favourable.

Evidence is now accumulating that acute osteomyelitis can be treated satisfactorily without surgical intervention when the therapy is started early in the course of the disease and before abscesses of the soft parts or extension of the infections of the joints has occurred. Penicillin must be given in amounts varying from 120,000 to 250,000 units a day and continued for a period of two to three weeks until all clinical symptoms and signs of infection have disappeared. In all cases of acute osteomyelitis in which recovery has taken place without surgical treatment, the patients should be followed carefully over a period of several months in order to be certain that

relapses or recurrences do not occur.

The treatment of osteomyelitis of the facial bones with penicillin has been followed by excellent results, as reported by Kirby and Hepp. When sequestra were present, surgical treatment in addition to the use of penicillin, was necessary to effect complete recovery.

It has already been stated that penicillin is a non-toxic drug. There are, however, certain side reactions which may be observed which require comment. So far, no permanent harmful effects on any of the systems of the body have been recorded. About two to five per cent of patients develop urticaria. The urticaria may appear on the first day of treatment, or it may not appear until after treatment has been completed. When it develops, it is commonly seen during the second week of treatment. In a few instances it may be quite severe and extensive, but in most cases it is mild and frequently disappears even though treatment is continued. Urticaria is not considered to be a contra-indication to continuing treatment or to re-administration of the drug at a later date in most cases. In rare instances it may be advisable to stop treatment, especially if the discomfort is severe.

Drug fever, analogous to that seen in sulphonamide therapy, has not been reported. Occasionally patients may

develop low grade fever after the clinical signs of infection have disappeared, and this subsides completely with the discontinuance of penicillin.

Occasional patients will develop abdominal cramps with or without diarrhea following penicillin, and nausea and vomiting have been observed in a few patients. The maximum therapeutic dose of penicillin that can be given safely in man has not yet been determined. It is known that doses are large as 4 million units a day have been given in one or two instances without ill effect. As far as is known, penicillin is not incompatible with any other drug or article of diet.

No discussion of penicillin would be complete without saying something about the cases in which penicillin fails to influence the course of the disease. The largest group, of course, includes those cases of infection due to microorganisms which are not susceptible to the action of penicillin, including, typhoid, tuberculosis, poliomyelitis, malaria, influenza, acute rheumatic fever, leukemia, ulcerative colitis and others.

In conclusion, it can be said that penicillin has exceeded our highest hopes as a chemotherapeutic agent. It is unquestionably the most effective agent for the treatment of many infections. There is no other known chemical that is so powerful against bacteria and so harmless to the host.

EXPERIMENT OR PERISH

by DR. NILS Y. WESSELL

Dean of Men and Director of Admission, Tufts School of Liberal Arts

Reprinted from Bul. of Mass. D. Soc.

TO THE average layman, the dental profession simply represents a health service productive of necessary discomfort to him once every six months. Dental care is something he would rather not think about, since it is associated in his mind with nerve-racking drills and sharp pain. He also tends to take dental service for granted, and too often makes it narrowly synonymous with the filling of

cavities. This is an unfortunate state of affairs, for dentistry is a highly social activity in terms of its significance for general health and the public welfare.

But laymen are becoming more interested in the future development of dentistry as a profession and as an important health service. However, there is much about dentistry that disturbs these thinking laymen and

they are seeking avenues through which to express their concern. Chief among their questions is one directed toward the role of research in relation to dental disorders and dental service.

There are very good yet very simple reasons why the layman feels that something is amiss in dental research. He directs the imperative, "Experiment or perish," to the individual practising dentist and to dentists as a professional group. The layman looks about himself and discovers with alarm that good dental service is very inequitably distributed among the various economic strata of society. He discovers that many corrective dental procedures are so expensive that only about 1/5 of the general population can afford them. In his search for an answer to this situation, he turns naturally to the question of the socialization of dentistry. He is not sure whether socialization will prove to be a good thing or a bad thing, but he does feel that some form of socialization is inevitable. He hopes that if it proves to be a bad thing it will die a natural death, but has the strong suspicion that it may well prove an effective method of making for the better distribution of dental service throughout society. He hopes that the dental profession will play a large part in moulding and directing any program of socialization. Unless dentists do get in on the ground floor and exert their influence, the eventual program of socialization will be one not representing their own best interests. By its very nature, dentistry has taken a larger step than medicine in this direction.

Yet socialization does not seem to provide a complete answer to the problem of the more equal distribution of dental service. And so it is that the layman looks to research to provide many of the answers. Research alone will produce the better and the cheaper technique for correcting dental disorders which today require expensive and involved methods, too expensive

for the great majority of the population.

The layman is also disturbed to learn, when he investigates the present-day history of medical sciences, that with advancing civilization dental disorders increase rather than decrease. He has come to believe, incorrectly yet firmly, that advancing civilization is synonymous with improved health in all branches of medical service. It is obvious that research alone will provide the answer to the mounting problem of dental disorders which present such an alarming paradox in the history of man's progress.

With such obvious needs for research in dentistry, the layman seeks for reasons why more research and more productive research are not taking place. It becomes apparent rather early in his search that experimental work in dentistry receives only a small fraction of the financial support which goes to health services in general. The endowments of all dental schools in the country combined represent only a small fraction of the endowments of two or three of the largest medical schools in the country. Large research funds dedicated to dentistry cannot be found at all. This situation has been without question a real handicap to men interested in furthering man's knowledge of dental disorders. Is this society's fault or is it due to the failure of dentistry to sell itself and its real problems to society? Dental disorders by their very nature lack the human-interest appeal which is associated with more evident physical disorders. Yet no disorders find a higher incidence in the general population than disorders affecting the mouth and teeth. Perhaps dentists have failed to sell their problems and the importance of their problems to the public.

In seeking further for an explanation of the lack of research in dentistry the layman is likely to be impressed with the over-emphasis on the part of dental schools and dentists on

the mechanical aspects of their profession. Too often the goal of the dental student and the goal of his instructors is to produce a perfect technician who has little or no interest in the larger problems of dental disorders. This situation is naturally not conducive to research interests. The layman wonders if a dentist could not turn such mechanical problems over to specially trained technicians and direct more of his energies toward solving the important problems of tooth decay and mouth disorders.

The practising dentist and the dental student also seem to lack a real appreciation of the biological concept of the organism as a whole. Show the average layman an ovarian tumour with perfectly formed teeth in it and he will immediately exclaim as to the obvious implications of such biological phenomena for the understanding of dental growth and development. Yet such implications and relationships seem to go unnoticed by most men in the dental profession, at least as far as any influence on their practice and research is concerned. Instead, the dental students and the practising dentists isolate the mouth and the teeth from the rest of the organism and concern themselves too narrowly with the special functionings of these organs. To the layman research from such a limited point of view seems unproductive from the start.

In his limited experience with the practice of dentistry, the layman has also been impressed with the dentist's overemphasis on service. The average practising dentist seems to have no more interest in research in dental disorders than the average practising butcher has in research on how to improve the breed of cattle from which he slices his steaks. The butcher's only concern is with selling the steaks to his customers. The practising dentist's only concern seems to be with getting paid for filling cavities.

Dentistry has been and still is a monopoly. It can and should be an enlightened monopoly. But this monopoly will have short shift if dentists insist on being tradesmen first and research scientists second. Medicine will gradually take over the responsibility which at the moment is primarily dentistry's, and the dentist will find himself relegated to the same position that the x-ray technicians and the laboratory technicians have been relegated to today.

"Experiment or perish" is an imperative directed to dentists individually and collectively. It is no more applicable in any part of the country than in New England where the incidence of dental disorders is greater than in any other section of the country.

The individualistic character of our people, the undoubted ability of the medical profession in Canada, and the popular demand for the maintenance of the patient-doctor relationship must forbid our embarkation upon a course of state medicine in its true meaning. I can think of nothing more disastrous for the good health of our people. The political poppycock of so-called socialized health services has had an immediate and definite answer. Some form of sickness insurance or prepaid medical care for all classes and groups is desirable. Flexibility in a national program may achieve this desirable end, but sickness insurance can really accomplish only three things; a distribution of the financial burden of the individual cost; the opportunity for isolated communities to obtain medical care on a subsidized basis; and the possible improvement of the financial security of the individual physician.—R. P. Vivian, M.D., Minister of Health, Province of Ontario, in Can. Med. Assoc. Jour., Aug. 1945.



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Editorials

DR. WESTON A. PRICE AND NUTRITION

Canadian dentists have always taken a particular interest in Weston A. Price, a Canadian by birth, but for many years an outstanding research worker in the city of Cleveland. A couple of years ago, Dr. Price retired from active practice and moved to California but to the very end of the road his thoughts will remain on research and how he can help his fellow man.

In 1939 he published his book on "Nutrition and Physical Degeneration" which was reviewed in this Journal. It was reprinted in 1940 and in 1942 but now, owing to the continued demand, it has been reprinted with about one hundred additional pages. It is being published particularly in order that the author may be able to place free copies in the medical and public libraries, in the United States, Canada, Australia, New Zealand and as far as may be possible, throughout the modernized world, from profits of sold copies.

Dr. Price's reports on field studies on the life of primitive tribes in various parts of the world, which have appeared from time to time, in the professional magazines, have been read with unusual interest.

We, as dentists, are most anxious to determine the cause of dental caries and other mouth deformities and diseases. We recognize that primitive man has good teeth and that "civilized" man has bad teeth without facing the problem seriously as to why these exist. Dr. Price has written, as the distinguished anthropologist of Harvard states, "a profoundly significant book."

In the conclusions of this book the author discusses the problems of what produces so called bad boys and girls, the problem child at school and at home. The present increase has been explained by the fact that both parents have been employed in war work but Dr. Price claims that in only 4% of the cases have both parents been so employed.

It is stated that juvenile delinquents and mentally retarded individuals have increased decade after decade all over the country and that heredity and environment are not the whole story but that the use of demineralized and vitamin free foods are a very important factor. The defects can never be cured but they could have been prevented.

Dr. Price points out that we can all see the many illustrations from primitive races and from animals how this problem of physical degeneration expresses itself in the younger members of the family, indicating that the parents were running out of something. Their protoplasm was not normally organized. The narrow nostril, the crooked teeth, the narrow hips, all tell their story. The immediate need is for means to prevent the building of defectives which is primarily a matter of education of parents-to-be, long before the problems arise. With adequate teaching, we can save millions both in money and in lives, besides building a living, instead of, a dying civilization.

Dr. M. F. Ashley-Montagu, the distinguished anatomist and anthropologist of Harvard, in discussing the motive of the Australian Aborigine and the average Eskimo, is quoted as saying: "We are very definitely their inferiors. We list noble ideals and noble sentiments — the Australians and Eskimos practice them—they neither write books nor lecture about them. They are the only true democracies where every individual finds his happiness in catering to the happiness of the group, and where any one who in any way threatens the welfare of the group is dealt with as an abnormality."

It is further pointed out that nature has been making normal birds, butterflies and animals for many years; that if wild animals can do it why can't we? "They are protected by their ignorance, including a natural absence of a profit motive."

I have not reached the point yet where I believe that it is in the interests of our nation to eliminate the profit motive in all our activities but I do believe most sincerely that when profit motives are known to act to the detriment of the race, that no stone should be left unturned to correct the evil. A while ago our Canadian Dental Association, through its Dental Health Committee, planned to broadcast a health message to the people of Canada and before the manuscript was accepted by the radio station it was necessary to delete certain statements as to the harmful effects of sugar upon the teeth, obviously to protect the sugar interests. This is but an illustration of the many health problems which are facing us every day and in which we, as dentists, have great responsibility. We cannot expect men who are involved in looking after busy practices to find time to follow up

these matters as would be the case had we full time officers to whom we could turn.

Dr. Price has given his life to solve these problems and bring them before interested parties and we should do everything possible to assist him.

M. H. G.

THE WRITING OF DENTAL PAPERS

Occasionally, the Editor receives a manuscript for publication which is carefully written and with which no fault can be found but as a rule much is to be desired. It would be most helpful if the following rules were observed:

1. Paper should be of good weight and the pages numbered.
2. The original copy, not a carbon, should be forwarded.
3. Manuscripts should be typewritten and double spaced.
4. Illustrations should be clear photographs. Glossy prints are preferred. Drawings must be made in black ink. All should be carefully packed.
5. Illustrations should not be pasted on the manuscript but kept separate.
6. Legends should be placed on a separate sheet.
7. If a paper has been read before an association or society the name of the organization should be given, together with the date and place of meeting.

Articles are accepted with the understanding that they have not been published previously and that they are submitted solely to the Journal.

An author may spend a great deal of time preparing his manuscript but unless he is concise so that the reader may obtain the important thoughts without having to wade through a mass of material, his readers will be few in number and an otherwise excellent piece of work will become lost to the profession.

M. H. G.

BOOK REVIEWS

Facial Prosthesis by Arthur H. Bulbulian, M.S., D.D.S., F.A.C.D., Director, Museum of Hygiene and Medicine. The Mayo Foundation, Rochester, Minnesota. 241 Pages. 202 Illustrations. Published by the W. B. Saunders Company, Philadelphia and London, 1945. Canadian Agents, McAinsh and Co. Ltd., Toronto. Price \$5.75.

Now that the war is over and our veterans are returning home there will be many cases where facial prosthesis will be required and where dentists who have equipped themselves

to undertake this work will find an interesting field of endeavour.

The primary consideration in this book is to present a practical guide for those who are now or may later be, called upon to do prosthetic facial reconstruction.

The first six chapters deal with general fundamental principles serving as a background for the more detailed and specific information contained in subsequent chapters. The following subjects are discussed: "Taking Impressions and Making of Casts"; "Reconstruction

of the "Nose, Ear, Orbit and Eye"; "Latex Restorations"; "Use of Plastics in Facial Prosthesis"; "Methods of Retention"; "Full Facial Casts"; "Additional Materials Commonly Used in Making a Facial Prosthesis".

When a man or woman loses a nose, ear, an eye, or a portion of the face, a serious problem is created, and if surgery is not indicated, then a prosthetic facial restoration is required, a procedure which should be acceptable as the wearing of an artificial denture and it is more essential.

Obviously this work is highly specialized and who is better qualified than the dentist to render this special service. Therefore it is to be hoped that many dentists will make a careful study of this field; and all such should read this splendid book on the subject.

M. H. G.

Oral Pathology, by Thomas J. Hill, D.D.S., Professor of Clinical Oral Pathology and Therapeutics, Western Reserve University, Cleveland, Ohio. Third Edition, Thoroughly Revised. Illustrated with 332 Engravings. Published by The Macmillans in Canada, St. Martin's House, Toronto. Price \$7.50.

This edition of this book is a revision of Oral Pathology by Bunting and Hill. Much of the original material is carried in this book however, much new material has been included.

The purpose of the book is to present in a clear and concise manner the pathological lesions of the oral cavity and their significance in the practice of dentistry. It is intended primarily for undergraduate teaching but could not prove otherwise than a "Refresher Course" to any practising dentist.

The following subjects are covered: Abnormal Development of the Oral Region; Abnormalities of Dentition, Malocclusion and De-

formities; Hypoplasia of Enamel and Dentine; Organic and Inorganic Accretions on the Teeth; Abrasion and Erosion; Caries; Diseases of the Dental Pulp; Periapical Diseases; Gingivitis; Periodontoclasia; Deep Neck Infections; Stomatitis, including such diseases as Pellagra, Lichen Planus, Metallic Poisons, Actinomycosis, Syphilis, Pernicious Anaemia, Pemphigus, Agranulocytosis, etc.; also, Tumours and Cysts.

A thorough understanding of these diseases is necessary in order to rationally prevent or treat them. This book should prove most enlightening.

M. H. G.

Prescription Writing and Formulary For Dentists (Dental Materia Medica)

by L. Richard Cipes, Ph.G., D.D.S. Second Enlarged Edition. Dental Items of Interest Publishing Co. Inc., Brooklyn, N.Y. 295 pp. 1945.

This book contains a great deal of information on Dental Materia Medica, Therapeutics and Prescription Writing. Many of the prescriptions are very antiquated and would find very little use in Dentistry today. In the body of the prescriptions Latin, English and abbreviations are mixed up so indiscriminately that any conscientious teacher of prescription writing would hesitate to recommend this book to dental students as an example of correct prescription writing. If the therapeutics discussed in this book are written with as little attention to accuracy as are the prescriptions, any teacher of dental therapeutics would be well advised to examine the work critically before offering it to his students.

G. H. W. LUCAS,
Pharmacology Department
University of Toronto

"Advertising should not deface the first pages of a scientific or professional journal."—Grace Rogers Spalding.

A mighty handy gadget to sharpen hypodermic needles can be easily made by glueing $\frac{3}{4}$ inch fine cuttle fish disks to top and bottom of each end of an ordinary wooden tongue blade or depressor. This is a time saver and ready when needed.—Dental Assistant.

DENTAL CORPS NEWS

SUPPLEMENTARY LIST OF CANADIAN DENTAL CORPS OFFICERS AS OF OCT. 9

APPOINTMENTS

Rank, Name and Date	Civilian Address
Lieut. J. D. Vautour, 25-7-45.....	Richibucto, N.B.
Lieut. D. E. Fraser, 24-7-45.....	Springhill, N.S.
Lieut. H. P. MacCormack, 24-7-45.....	Sydney, N.S.
Lieut. C. A. MacIntosh, 24-7-45.....	Point Hawkesbury, N.S.
Lieut. S. G. Bagnall, 24-7-45.....	Halifax, N.S.
Lieut. V. Grant, 2-8-45.....	Montreal, Que.

RETIREMENTS

Rank, Name and Date	Civilian Address
Major L. F. Allanach, 8-8-45.....	Moncton, N.B.
Major D. T. Wilson, 7-9-45.....	Fredericton, N.B.
Major A. Masson, 31-8-45.....	St. Lambert, Que.
Capt. R. Cholette, 10-9-45.....	Montreal, Que.
Capt. G. R. Sidenburg, 23-8-45.....	Toronto, Ont.
Capt. J. L. Fitz-Gerald, 1-9-45.....	Toronto, Ont.
Major W. O. Laing, 24-8-45.....	Essex, Ont.
Major W. T. McIntosh, 23-8-45.....	Toronto, Ont.
Major R. W. Freestone, 28-8-45.....	Toronto, Ont.
Major G. A. Pollock, 12-9-45.....	Thorold, Ont.
Major J. G. Pilkey, 24-8-45.....	Toronto, Ont.
Lt.-Col. W. L. Findlay, 23-8-45.....	Islington, Ont.
Capt. R. F. Shuttleworth, 22-8-45.....	Bracebridge, Ont.
Capt. R. W. Fell, 13-8-45.....	Norwood, Man.
Major H. B. Gorrell, 18-8-45.....	Winnipeg, Man.
Major W. J. Arnold, 8-8-45.....	St. James, Man.
Capt. O. Brewer, 11-8-45.....	Winnipeg, Man.

Capt. W. A. Marquis, 13-8-45.....	Winnipeg, Man.
Lt.-Col. C. L. Strachan, 10-8-45.....	Winnipeg, Man.
Capt. M. F. Bennett, 30-8-45.....	Winnipeg, Man.
Capt. H. M. Hamilton, 7-9-45.....	Winnipeg, Man.
Major H. R. Stewart, 10-9-45.....	Winnipeg, Man.
Capt. V. W. Rondeau, 24-7-45.....	Rouleau, Sask.
Capt. C. C. Casewell, 22-8-45.....	Melfort, Sask.
Major C. B. Hallett, 1-8-45.....	Saskatoon, Sask.
Capt. F. Bernbaum, 7-9-45.....	Saskatoon, Sask.
Capt. A. E. Chegwin, 29-8-45.....	Moose Jaw, Sask.
Major N. J. Quigley, 27-8-45.....	Banff, Alta.
Capt. R. A. Newlove, 13-8-45.....	Lethbridge, Alta.
Capt. J. D. Morrison, 8-9-45.....	Medicine Hat, Alta.
Major R. W. Bradley, 31-8-45.....	Edmonton, Alta.
Capt. H. S. Fleming, 27-8-45.....	Edmonton, Alta.
Capt. E. A. Slack, 8-9-45.....	Medicine Hat, Alta.
Major E. M. Galbraith, 11-9-45.....	Edmonton, Alta.
Major D. W. Wilkinson, 26-7-45.....	Poplar Creek, B.C.
Capt. W. S. Porteous, 16-8-45.....	Vancouver, B.C.

C.D.C. HONOURS AWARDS, MENTIONS IN DESPATCHES

Major Terence Judson Sunter Cooke
Captain Harry Myer Jolley
Captain Thomas Harvey Christopher Robb
C. 41782 Warrant Officer Class II, (Quartermaster-Sergeant) William Ronan Pelow
L. 25823 Lance Corporal Norman Richard Jarvis
D. 124616 Private Albert Henry Ley

CANADIAN DENTAL ASSOCIATION NEWS

(FROM THE OFFICE OF THE SECRETARY)

Health Insurance—Position of Dental Profession

In relation to the proposal respecting health insurance as presented at the recent Dominion-Provincial health insurance conference the position of the dental profession in relation to the second stage development becomes a pertinent one.

Recently President Reid and the Secretary interviewed, in Ottawa, the Deputy Minister of National Health and Welfare respecting this point. Following the interview a letter was written to him so that an official reply could be made covering the matter for the information of our members. The correspondence follows:

To Maj.-Gen. G. Brock Chisholm:

In our study of the health insurance proposal, as presented at the Dominion-Provincial Conference, we note that Dental Care is to be introduced in the second stage or after the actual introduction of health insurance.

We are of the opinion that our members will be critical of this position. The point of contention will most likely be, that it appears

as if the dental profession will be drafted into an administrative arrangement, at the end of two years, in which the profession will have had no voice in formulating, and quite probably will be one unsuitable to dentistry.

Your observations upon this point would be appreciated in order that we may be able to present the matter accurately to our members.

(Signed)—

DON W. GULLETT, Sec. C.D.A.

Reply:

In reply to your letter of September 27 about the position of the dental profession in relation to Health Insurance, I think that your profession need not be concerned about the provinces completing their administrative arrangements without reference to it.

The first grant to be made under the proposals leading to Health Insurance is a Planning and Organization Grant, in the words of the Proposals, "so that each Provincial Government may as soon as possible establish a full-time planning staff to prepare for and organize Health Insurance benefits within the province and make provision for the training

of necessary personnel." Within eighteen months of the acceptance of this grant each province will be expected to submit the Provincial Health Insurance program to the Federal Government. THIS PROGRAM WILL INCLUDE WITH ALL THE OTHER BENEFITS THAT OF DENTAL CARE, SO THAT THE ADMINISTRATIVE ARRANGEMENTS IN RELATION TO THIS BENEFIT WILL BE ON EXACTLY THE SAME BASIS AS THE OTHER BENEFITS NO MATTER IN WHICH STAGE OF THE HEALTH INSURANCE PROGRAM THEY ARE INCLUDED.* This places the Dental profession in exactly the same relationship to the Health Insurance program as other professional personnel concerned in its implementation.

I hope this statement may reassure your members.

(Signed)

G. B. CHISHOLM, M.D.,

Deputy Minister of National Health

*Capitals by Secretary—not in original letter.

Principles For Dental Health Services

(As revised at the Winnipeg meeting,
June, 1945)

1. That plan be national in character.
2. That each Provincial Government be free to choose the adoption of the plan, the method of application best suited to meet the dental needs of its people, and the administration of the monies.
3. That the administration of the plan be through the cooperation of the Provincial Government and the Dental Board as provided and constituted at the present time under the provincial statute regulating the practice of dentistry in each province.
4. That the practice of dentistry be carried on in the private office of the dentist except

under circumstances not favourable to private practice.

5. That the regulation of the plan and the proper allotment of funds to be expended for dental health service be proportioned and adjusted by agreement between the Provincial Government and the Provincial Dental Board as defined in Clause (3). That there be authorized for this purpose a committee to consist of five persons, three to be appointed by the Dental Board and two by the Provincial Government.

6. That the following features be observed:

(a) Every qualified dentist in good standing to be eligible to practise under the plan.

(b) The patient to have freedom of choice of dentist and the dentist to retain the right to refuse attendance upon a patient subject to geographic, ethical or professional considerations.

(c) The basis of dental service be, to make available the services of the dentist in general practice—the referring of patients for any special services to be made through said dentist.

7. That preventive dentistry rather than restorative dentistry shall hold a dominant position.

8. That there shall be no interference with the development and progression of the recognized dental professional standards.

9. That adequate provision shall be included for the encouragement and support of research in dentistry.

10. That any plan adopted shall provide for the indigent on an equal basis with those who are in a position to make contributions.

11. That the determination of the need for dental services shall be the prerogative of the dental profession.

12. That the dental profession be adequately represented on all coordinating authorities and committees of any Health Insurance Plan.

The master-word is work. — Osler.

Said wise Confucius: In all things, success depends upon previous preparation.

NEWS FROM THE PROVINCES

ALBERTA

Edmonton Dental Society

This Society held its first meeting for the 1945-46 term, at the Macdonald Hotel, October 2.

Dr. J. D. Hawkins, the President, welcomed the forty members present and then introduced "Dr. Max. Cantor of the Dep. of Biochemistry, University of Alberta," who spoke on "The Modern Concept of Nutritional Disorders, on a basis of Aetiology." Dr. Cantor remarked that over a third of our population are suffering from some form of nutritional disorder, either an over or an under nutrition, which has been greatly aggravated by wartime conditions and a lack of proper knowledge on the subject.

The Society voted a free membership for all members of the Canadian Dental Corps, who were discharged subsequent to V-E Day, for the 1945-46 term.

SASKATCHEWAN

Regina Dental Society

The first meeting of this Society for the 1945-46 season was held on October 9 with the following as officers for the year: President, Dr. H. M. Schweitzer; Vice-Pres. Dr. J. M. Riffel; Sec.-Treas. Dr. Ben Bookhalter.

The guest speaker of the evening was Dr. W. A. Riddell of the Saskatchewan Department of Public Health, who spoke on "The Laboratory and Your Health".

Dental officers of 32 and 40 Coy., C.D.C. were guests of the Society for the evening.

Saskatoon Dental Society

This Society had as its Guest Speaker, Dr. Spencer, Radiologist, Director of The Cancer Clinic of City Hospital. He dealt with "Cancers of the Mouth, as to Clinical Appearance, Treatment, Prognosis and Aetiology".

He warned dentists to be very careful not to extract teeth at any time following any extensive irradiation for a cancerous condition.

Dr. Spencer has promised an early article for this Journal.

The Society was unanimous in offering its assistance to the Cancer Clinic in every way possible, eg. extraction of teeth and making of radium moulds. The members are subject to call in rotation by the Cancer Clinic.

MANITOBA

Winnipeg Dental Society

This Society began its 1945-46 series of meetings on Monday evening, October 22. A large number of its members attended. The speakers were S/L P. C. Lund, M.D., and Wing Commander Lennox Bell, M.D., both of Winnipeg. Dr. Lund is in charge of the anaesthesia service at Deer Lodge Military Hospital. Dr. Bell is chief medical officer there as well as being on the staff of Manitoba Medical College and the Winnipeg General Hospital.

Dr. Lund's subject was "Modern Dental Office Anaesthesia" and Dr. Bell's was "Chemo-Therapy in Oral Infections". Dr. Lund's description of the number of safe general anaesthetics and modern methods of administration makes one who has practised general dentistry for 30 or 40 years, including the extraction of teeth with the assistance of chloroform ad lib, marvel at the hundreds of cases handled without having a visit from the sherriff or coroner. Of course we don't do those things now-a-days because we know it is condemned. But at the same time one marvels at how fortunate we were in the old days.

Dr. Bell said that his subject was misnamed as he really wanted to talk about anti-biotic therapy under which substances such as penicillin could be discussed. Dr. Bell spoke for over half an hour without a note, and his information, as with Dr. Lund's, made us wish we could be starting all over again to go to a professional school and be really up to the minute in medical and chemical therapy. If the next ten years give out as much preventive information as the past decade, octogenarians will be just middle aged persons.

One interesting resolution arising from the

meeting was in connection with the need or otherwise of starting a dental college in Manitoba. A committee was appointed to gather information on the subject.

Winnipeg Dental Nurses and Assistants

This Association has resumed its dinner meetings for another season. The meetings will be held at the St. Regis Hotel, the first Monday of the month.

Thirty-four attended the September meeting when a complete report was given of the Biennial Meeting of the W.C.D.N.A.A. and the first Canadian Association Meeting held in Winnipeg in June. The formation of a study group was discussed.

Captain Roberts, who is the matron of Fort Osborne Military Hospital, was the guest speaker at the October meeting. Captain Roberts has seen service with the Canadian Army in both world wars, and is well qualified to tell of the achievements of the trained nurse in the army. "A Brief History of the Canadian Army Nurse" was the title under which she spoke and outlined the developments made since the beginning of the service during the Riel Rebellion. The nurses must be graduates of a recognized training school and are carefully selected for particular requirements of army nursing. They receive at least a four weeks' course in army training, hearing lectures on such subjects as Dress Regulations, Military Law, and Chemical Warfare; and instructions in Drill and Physical Training. Throughout their entire army career however, the nurses are reminded that they are in the service primarily to nurse the sick and wounded.

Captain Roberts reported that at the present time there are 3000 Canadian nurses in the army nursing service, also that 300 Canadian Army Nurses had gone to South Africa during 1941-42, to help relieve the critical shortage of nurses in that country.

JANE MCCLURE.

ONTARIO

Eastern Ontario Dental Association Convention at Ottawa Sept. 24-25

Congratulations to President Dr. Alvin Cameron and his able executive for arranging

the Association's most successful convention. Around the table at the closing banquet such comments as: "fine meeting"—"not a hitch"—"well balanced program"—"best yet", were common. Perhaps one of the impressive features of the whole meeting was the friendly atmosphere, apparent at every function. Duties were delegated to many members in turn who were delighted to respond, indicating harmony, co-operation and good organization.

Among the guests present at the meeting were: Dr. Harvey W. Reid and Dr. Don W. Gullett, President and Secretary of the Canadian Dental Association; Dr. Frank Martin, Dr. W. S. Swetnam and Dr. Harold Swales respectively, presidents of the Ontario Dental Association, the Montreal Dental Club and the Toronto Academy of Dentistry; and Dr. Frank Kohli, Director of Dental Services of Ontario. The essayists were: Dr. George Morgan, Toronto; Dr. A. Couture, Ottawa; Major Linghorne and Major McIntosh of the C.D.C.; Dr. C. H. Moses, Hamilton; Dr. Vince Keenan, Sudbury, Vice-Pres. Dental Public Health Council of Ontario; Dr. C. J. Ringle, Buffalo; Dr. T. L. Fisher, Ottawa and Dr. R. B. Bell, Montreal.

President Cameron in his opening address welcomed the members and guests to Ottawa. Said he, "This is truly a Victory Convention. It is a time for great thankfulness and for rejoicing in the return of our members from overseas. We welcome them back to Canada and back to civilian practice. We also bespeak for them a friendly reception and friendly interest on the part of every dentist in aiding their rehabilitation." Dr. Harvey Reid and Dr. Frank Martin in a few remarks also indicated something of the plans afoot contributing to help discharged veterans of the C.D.C. back to private life.

The academic program provided instruction for every taste, Exodontia, Periodontia, Public Dental Health, Prosthetics, Office Management and Jurisprudence.

The social functions were: a luncheon for members, guests and their ladies, addressed by Rev. Northcote Burke and a concluding banquet with entertainment addressed by Mr. John Fisher, C.B.C. news commentator. Rev. Burke concluded his remarks after referring to atomic power with—"The gifts of nature and science have come into the command of



ALVIN A. CAMERON, D.D.S.
President, Eastern Ontario Dental Association.

man before he can command himself". "Toleration as a creed will not do", said John Fisher. "Toleration means you are holding yourself aloof from the other fellow—take him for what he is worth instead—he may be right." Continuing he said, "The World is so small today because of scientific achievement that we cannot ignore conditions in any part of it. You can't have Irish eyes smiling and other eyes in Prague crying—Our world today is too small".

The new officers of the Association are:

President—Dr. Murray Purcell, Pembroke.

Vice-Pres.—Dr. L. R. Braden, Ottawa.

Secy.-Treas.—Dr. W. M. Stevenson, Avonmore.

Auditors—Dr. W. C. McCartney, Dr. S. W. Bradley.

Council—Dr. Alvin Cameron, Ottawa; Dr. I. F. Calder, Brockville; Dr. John French, Ottawa; Dr. Geo. Barret, Ottawa; Dr. A. Couture, Ottawa; Dr. N. O. Gardner, Ottawa; Dr. W. A. Weatherhead, Sharbot Lake; Dr.

Murray Wilson, Perth; Dr. J. C. Maybee, Gananoque.

Ladies' Auxiliary, Toronto

The Season's Opening meeting of the Ladies' Auxiliary to the Academy of Dentistry and Canadian Dental Corps M.D.2, was held at the King Edward Hotel, on September 20. Mrs. Roger W. Matchett, President, welcomed the members and guests. Mr. C. W. Wright, the guest speaker, was graciously introduced by Mrs. Clifford Sullivan and Mrs. Harold Shepherd expressed appreciation of the members for a highly interesting address. It was unanimously decided to continue wartime activities until the need for such ceases.

The Annual Membership Tea was held at the home of Mrs. Harvey G. Bean, on October 18. Guests were received by Mrs. Roger W. Matchett, President, Mrs. H. G. Bean, and Mrs. L. R. Davison. Presiding in the Tea Room were Mrs. F. L. Dayment, Mrs. E. T. Guest, Mrs. G. W. Grieve, and Mrs. A. J. McDonagh. Members of the Executive Committee assisted. A candy shower for British children was also held on this occasion.

Activities of this Auxiliary are meeting with such success that it is felt that a larger number of the wives of the dentists would like to be actively associated with our organization and all such are welcome.

LILLIAN E. CONBOY.

Ontario Dental Nurses' and Assistants' Association

Although our thoughts and good wishes are extended to our President Sgt. Doris Gregory who is now serving her country overseas, our cooperation and support must be given to our Acting President, Miss Anne Kirkland of Kitchener. Anne has been a successful President of her local Association for two years and also a very capable Treasurer on the Ontario Executive for the past two years. With such splendid qualifications, we know that under her guidance the O.D.N. and A.A. will continue the high and esteemed record which has been established by our past officers. Good luck to you Anne. We are proud of you.

Patriotic Donaters and Knitters Club

Under the very capable direction of Mrs. Leta Blaber, our Patriotic Donaters and Knitters Club officially ends this year. During the past six years, this Club has established a record which cannot be equalled. Thousands of hearts have been cheered by the many parcels and boxes Mrs. Blaber and her excellent committee have sent. "Orchids to you." Your untiring efforts will ever be in the hearts of each member of the O.D.N. and A.A. You have served us nobly and we are honoured to have our names coupled with the P.D.K.C. Nor will all this splendid work close when the charter expires. We know that our newly formed "Ontario Benevolent Society" will be equally successful, and our gallant boys now confined to hospital, will eagerly look forward to the cheer you will provide for them.

Each Dental Nurse and Assistant will continue to save de-capped carpules to help provide you with funds to carry on this wonderful work.

Dental Nurses' Alumnae Association

Mr. D'Angelo, Director of Canada's only School of Charm and Professional Modelling addressed this Association on October 9 at the Royal York Hotel on "Charm and its Relation to Manner, Presentations, and Mental Attitudes."

The Annual Alumnae "At Home" was held in the Royal York Hotel on October 18. A coffee party was held prior to the dancing with the President, Miss Lois Mooney and Vice President Miss Betty McCarter receiving the guests.

HELEN KRUGER.

The Ontario Dental Nurses' and Assistants' Association Board of Governors 1945-46

President—Sgt. Doris Gregory (on active service).

Past President—Mrs. Irean Bruce, 371 Keele St., Toronto.

First Vice-Pres. and Acting President—

Anne Kirkland, Medical Arts Building, Kitchener.

Second Vice-Pres.—Helen Dosman, 15 Wellington St., Brantford.

Recording Secretary—Lura Edwards, 1474 Bathurst St., Toronto 10.

Corresponding Secretary—Larry Olheiser, Medical Arts Building, Kitchener.

Treasurer—Dorothy Bailey, 603 Medical Arts Bldg., Hamilton.

Archivist—Mrs. Marion Edwards, 760 Spadina Ave., Toronto.

Benevolent Convener—Mrs. Leta Blaber, 148½ Bloor St. W., Toronto.

Publicity Convener—Ruth Janke, 970 King St. W., Kitchener.

Windsor Affiliated Association

Miss Shirley Graham presided at the first meeting of this Association held on September 11. Shirley Graham was elected President to succeed Miss Dorothy Bailey who moved to Hamilton. A rummage sale was held October 8. Mrs. Ferna Cook entertained Mrs. Marion Edwards, President of the newly formed Canadian Dental Nurses' and Assistants' Association, on September 15.

Kitchener Affiliated Association

The opening meeting of this Association was held on September 12, at the home of the President, Ruth Janke, to plan the program for the year and enjoy a social hour.

RUTH JANKE.

Brantford Affiliated Association

This Association held a corn roast at the home of Mrs. A. Brown on September 11. A short business meeting preceded the social hour, when new members were welcomed and a letter of appreciation from Mrs. Blaber was read.

Academy of Dentistry, Toronto

The opening meeting of the Academy was held in the Royal York Hotel, October 17. Members and guests from nearby cities and towns assembled for dinner and to hear an

address by the Editor of MacLeans magazine, Mr. Napier Moore. Introduced by Dean A. D. A. Mason, Mr. Moore discussed the present confused state of the world, the futility of war and went on to point out some of Canada's privileges and responsibilities in the world of to-morrow. Dr. Harvey Reid, President, Canadian Dental Association, expressed the thanks of the meeting.

The Academy Year Book an annual publication of the Academy of Dentistry, Toronto, has recently come to hand. It contains the complete season's program, together with that of the five district societies. It is well prepared and a credit to those responsible for the preparation.

Under the leadership of President Dr. Harold A. Swales a remarkably well balanced program is presented for 1945-46. The four general meetings deal with academic subjects designed to keep the profession abreast with the various scientific developments which may be applied to dentistry. The first meeting on Thursday, November 8 is a symposium on "Dentistry for Children" by Dr. J. Harry Ebbs, a prominent Toronto pediatrician and Dr. R. G. Ellis, Professor of Operative Dentistry, Faculty of Dentistry, University of Toronto. On Wednesday, January 16 Dr. Maynard K. Hine, Dean of the Dental School, University of Indiana, discusses the "Correlation of Aetiology and Treatment of Periodontal Disturbances." Harold M. Vernon of Pittsburg brings us the story of the development of acrylic resins on Wednesday, February 13. The essayist at the final meeting on Thursday, March 14, is John C. Krantz, Jr., Ph. D., Professor of Pharmacology and Chemistry, University of Maryland, who will deal with pharmacology as it applies to dentistry.

The feature of the season's activities is the Annual Winter Clinic on Wednesday, November 28. This meeting, under the direction of Dr. H. Colton Bliss, President-Elect, emphasizes the practical side of dentistry. Three "Limited Attendance" clinics and fifteen group clinics present helpful discussions in many phases of dental practice. There will also be a formal luncheon with an outstanding speaker and an evening dinner with sparkling entertainment provided for pleasure and enjoyment. Table clinics in the

evening until 10 o'clock will fill out a program that promises to be "Tops" for a one day meeting.

All dentists in the services and those who have been discharged are cordially welcomed to the meeting. They are also urged to avail themselves of the services of the Academy in re-establishing civilian practice.

H. R. Skilling

Post Graduate Course at Toronto

The first of the Fall Term short Post Graduate courses was held at the Faculty of Dentistry, University of Toronto during the week of October 22. The subject was Periodontology and the following dentists were enrolled in the course:

Dr. H. C. Arnott, Oshawa, Ontario; Dr. F. E. Dawe, St. Catharines, Ontario; Dr. J. C. Fullerton, Toronto, Ontario; Dr. E. J. Green, Cleveland, Ohio; Dr. A. N. Hill, Dundas, Ontario; Dr. L. N. Hollander, Cleveland, Ohio; Dr. A. P. Hutchinson, Pittsburgh, Penn.; Dr. H. A. Keenan, Corning, N.Y.; Dr. A. Laferriere, Montreal, Quebec; Dr. G. F. Mitchell, Grimsby, Ontario; Dr. W. D. MacDonald, Pittsburgh, Penn.; Dr. E. F. Schmeltz, Simcoe, Ontario; and Dr. C. W. Smythe, Toronto, Ontario.

Quarter Century Reunion Class 2T1

Dr. Gordon Millen M.P.P. and Dr. Roy Kerr, of 633 Danforth Ave., Toronto have consented to act as chairman and secretary respectively of a class reunion committee. Other members of the committee are Dr. Rene Rochon, Detroit; Dr. Leonard McCool, North Bay; Dr. Russel Hyde, Hagersville; Dr. Alvin Cameron, Ottawa; Dr. Wilfred Clark, Hamilton; Dr. W. J. Armstrong, Royal Bank, Toronto. It is the hope of the committee to have a real party and a full attendance of the class. Time will be Monday evening of our National Convention in Toronto next May. Plan now to attend.

Roy Kerr
Secy.

QUEBEC:

Dr. Charron Honoured

Dr. Ernest Charron, Dean of the Faculty of Dental Surgery, University of Montreal, has been appointed a fellow of the American College of Dentists, on account of the notable contribution he has made to dentistry.

Under the direction of Dr. Charron, the Dental Faculty of the University of Montreal has been completely reorganized and we are expecting great things from this Dental School.

Dr. Charron has taken a keen and helpful interest in the Canadian Dental Association and is highly respected by the dentists of Canada.

M. H. G.

Mount Royal Dental Society

A meeting of this Society was held on September 25, in the Mount Royal Hotel.

A most interesting address was delivered by Dean A. L. Walsh of McGill University, on "Exodontia and Minor Oral Surgery."

He explained the use of mild doses of Sodium Pentathol, sometimes followed by Nitrous Oxide for children in operative work and extractions. The use of the Lecluse Exolever and the slight rotation of the tooth to compress the cancellous septum followed by lateral movements in extractions. He warned of the necessity of conserving tissue and leaving a clean socket.

Dr. Walsh paid a high tribute to the memory of Dr. Horace Wells, whose work he described at some length.

NEW BRUNSWICK

News from the Provinces Annual Convention

The 50th Annual Convention of the New Brunswick Dental Society was held at the Admiral Beatty Hotel, Saint John, on September 17-18, with an attendance of 65 including several recently returned members of the C.D.C.

The clinicians were: Milton Lorimer Boyle, D.M.D., Boston, who lectured and also conducted a practical clinic on "Technique of Gingivectomy": Dr. J. Cyril Flanagan of Montreal, who spoke on the subject, "Dental Health Service for All" and also gave a prac-

tical clinic on "Operative Technique and Diagnosis in Relation to Occlusal Adjustments." Captain H. Everett Leyland, C.D.C., of Toronto gave a practical clinic on "The use of the Rubber Dam in Operative Dentistry".

The speaker at the annual banquet was J. H. Gunter, M.D., D.D.S., Professor of Oral Surgery at the University of Pennsylvania, who spoke on "Trends in Dental Education at the University of Pennsylvania".

The following officers were elected for the coming year:

President, Dr. James B. O'Brien, St. John
Vice-President, Dr. Thomas Manning, St. John.

Secretary-Registrar, Dr. Selby K. Wetmore, St. John.

It should be noted by those having correspondence with the New Brunswick Dental Society, that Dr. Wetmore replaces Dr. A. J. Coughlan who filled the office of Secretary during Dr. Wetmore's absence overseas with the C.D.C.

Members of the Council: Drs. A. J. Coughlan, St. John; B. R. Ross and F. L. Miller, Fredericton; Theo. Godin, Campbellton; H. G. Vaughan, Chatham; Vernon Hudson and A. J. LeBlanc, Moncton; J. B. Gosnell, St. John; T. G. Williamson, St. Stephen; R. E. McClintock, Centreville.

D.D.C. Representative: Dr. F. C. Bonnell, St. John.

C.D.A. Representative: Dr. Howard W. MacDonald, St. John.

H. W. MACDONALD.

NOVA SCOTIA

Halifax Dental Society

The first of the monthly dinner meetings of this Society was held at the Nova Scotian on October 4, with an unusually large attendance including members of the Dental Corps. A special welcome was extended three of the members who have returned to civilian practice, Lieut-Col. Crosby, Majors Murray Logan and W. C. Dowell.

The following officers were elected for the ensuing year: President, Dr. K. P. Johnson; Vice-President, Major Murray Logan; Sec.-Treasurer, Dr. S. C. Black; Executive Mem

ber, Dr. G. N. Stultz; Auditors, Dr. J. F. Griffin and Major Dowell.

The feature of the meeting was a practical demonstration of rubber dam application in every day practice by Captain W. H. Feasby of Toronto. The discussion and demonstration were both well arranged in sequence and ably presented. There is undoubtedly a strong tendency toward a more universal use of the rubber dam which will result in an improved service.

BRITISH COLUMBIA

Joint Committee on the Study of Health Insurance

In line with recent trends to study the problems of Health Insurance the B.C. Dental Association, at its annual meeting in 1943, appointed a committee to study and watch the then impending legislation on National Health Insurance.

This committee was re-appointed at the 1944 meeting with the further instruction to link up with other interested Health Service Organizations in the Province. In September 1944 a "Joint Committee on the Study of Health Insurance" was formed. This Committee is composed of four or five members of each of the following organizations:

- B.C. Hospitals Association.
- B.C. Dental Association.
- Pharmaceutical Association of B.C.
- Registered Nurses Association of B.C.
- B.C. Medical Association.

Regular monthly meetings were held during the winter and spring, each group presenting its particular problems to the meeting. A general discussion followed each paper.

The B.C. Dental Association was represented by Dr. Gansner, Chairman and Drs. Pallen, Stibbs and Walley. At the March meeting Dr. Walley gave a comprehensive paper on the Dental Problems involved in establishing Dental Benefits under National Health Insurance and in doing so he was largely guided by opinions expressed by members of Executive of the Canadian Dental Association and other members of the profession called in to give evidence to the Legislative Committee on Health Insurance at Ottawa.

The April Meeting was held for the pur-

pose of summarizing the work done by all the groups during the year.

In order to bring the subject of Health Insurance to the attention of as large a group as possible of the members of each organization represented by the Joint Committee, a meeting was held on September 11 under the general chairmanship of Dr. G. F. Strong of the B.C. Medical Association.

As this date corresponded with the annual meeting of the B.C. Medical Association there was a considerable representation from the medical profession from various parts of Canada. All together the five organizations present represented some 6000 persons directly connected with the Health Services of the Province.

The meeting took the form of a Round Table Discussion and speakers from each organization aired their problems before the meeting. Dr. Clarence Routeley, Secretary of the Canadian Medical Association, and its President, Dr. A. E. Archer, of Lamont, Alta. were present.

The large attendance from Members of all the Health Services at this meeting is evidence of the growing interest in Health Insurance Legislation and the desire for information on the same. It was generally agreed that a Joint Study Group such as organized in B.C. was most effective as it brought forth all the problems of the individual groups to the others and in this way correlated the work.

The B.C. Dental Association is doing its best to keep its members informed on current legislation and if it is possible to keep up with Ottawa through all the drafts and changes and redrafts the B.C. dentists should be fairly well posted if and when Health Insurance is inaugurated.

J. GANSNER

Vancouver Dental Society

The season 1945-1946 for this Society got off to a really good start with one of the largest meetings to date. It was held in the Hotel Vancouver Tuesday, October 2. The regular meeting with speaker and business meeting followed the dinner.

The guest speaker for the evening was Dr. C. Johnson of Tacoma, Washington, whose subject was:

- (1) Immunizing Mouth Tissues both hard

and soft to infection, by correct stimulation with tooth brush.

(2) Causic factors in treatment of Pyorrhea and Vincent's Infection.

Dr. Johnson is well versed in his subject having practised general dentistry for sixteen years before going into his specialty, which he has practised for ten years.

He gave to the members present some most useful and practical suggestions.

More Members of the Society who have been in the Canadian Dental Corps overseas are now beginning to return. Lieut. Col. Fraser Allen attended the meeting and was given a warm welcome. We hear that Major Frank Smith and Major Hamilton Simmons are also back in town after a very extended tour overseas.

For the College of Dental Surgeons of B.C., Dr. Emery Jones, the President, and Dr. W. J.

Lee, Registrar, gave a résumé of the activities of the College for the past few months.

The Society took note of the sudden passing of Dr. Howard Whittaker who met with an accident while on holidays in July. Dr. Whittaker has been an esteemed member of the Society for some time and latterly has been acting as librarian. Members stood in silence to his memory.

Dr. W. D. McLeod will act as Librarian for the Society.

The Diagnosis Study Club held an organization meeting in September and was ready to report a program of activities under way.

The Prosthetic Study had an encouraging number signify their intention to join this study and it will be under way shortly.

Dr. J. H. Merrell, formerly of Portage La Prairie was unanimously elected to membership in the Society.

EMPIRE NEWS

GREAT BRITAIN:

Death from Nitrous Oxide Self Administered

Once again an accidental death has occurred from $N_2 O$. A boy of 15, employed by a dentist, was found by his employer sitting in the dental chair, with the inhaler of the gas apparatus pressed firmly over his mouth and nose. He was dead when discovered. He was said by his mother to be a very bright boy, greatly interested in his work and very happy. The coroner attached no blame to the dentist who was not on the premises at the time.

Post-Graduate Courses at the Eastman Clinic

The Eastman Dental Clinic is resuming the Post-Graduate Courses which had been so successful in the period immediately prior to the war. The first series of courses in Dental Anaesthetics was due to commence on October 1. It will cover the whole range of the use of general anaesthetics for dental purposes.

AUSTRALIA:

Income Tax and Dentists' Fees: Australian Proposal

A writer in the *Manchester Daily Dispatch* (England) states that an Australian friend

tells him that "down under" it has been the practice for several years to grant income tax relief for doctors' fees up to £50 per annum, and that a proposal is now being considered whereby relief for dentists' fees should be similarly granted.

NEW ZEALAND

Freyberg Named Governor-General of New Zealand

Sir Bernard C. Freyberg, V.C., Commander of New Zealand's overseas forces during the war has been appointed the Dominion's next Governor-General.

Sir Bernard practised as a dentist in a little country town in New Zealand before he turned soldier on the outbreak of the last war. In that conflict, his conspicuous bravery and brilliant leadership won him many honours and distinction. Nine times wounded, six times mentioned in despatches, awarded the Victoria Cross and the Distinguished Service Order with two bars—that, in the bald language of the official record, is Sir Bernard's war time history.

Between the two wars, Sir Bernard, despite his nine wounds, made two gallant attempts to conquer the English Channel. At one time

he was taken from the water in a state of complete exhaustion within a few hundred

yards of the English coast. He had then been in the water seventeen hours.

GENERAL NEWS

Dental Records Completed in Grand Rapids Caries Experiment

The dental records of 28,000 school children in Grand Rapids, Mich., have now been completed in a dental caries experiment in which sodium fluoride has been added to the city's water supply. The examinations were conducted before 1 part per million of fluoride was added to the municipal water supply in December 1944.

Chicago Announces Program for Dental Economics Course

The program for the study course in dental socio-economics, to be presented jointly by the Chicago Dental Society and the University of Chicago this fall, has been announced. The course, entitled "The Dentist in the Social Order," will consist of eight weekly sessions, from October 10 to November 28, to be held at the Palmer House.

Science Talent Search

The fifth annual Science Talent Search in the U.S.A. among high-school seniors to discover the forty students with the greatest scientific promise will open this month (October) according to an announcement by Watson Davis, director of Science Clubs. Two four-year Westinghouse science grand scholarships of \$2,400 each will be awarded, and eight four-year science scholarships of \$400. each. An additional \$3,000 may be distributed at the discretion of the judges.

Labor Health Security

by Alfred J. Asgis, D.D.S., Ph.D., F.A.P.H.A., New York, N.Y. Condensed from *Jour. of 2nd Dist. D. Soc.*, October, 1945.

The American labour movement recognizes now that health security is an indispensable part of its program as are wages and hours, working conditions and collective bargaining. A health security program for labour rests on the health concept of the individual's well-

being and not on the limited medical concept of services provided. Dental health security is but a phase of national security.

To insure a satisfactory quality of dental health services, several essential requirements must be met. These are:—high educational standards; improved methods and techniques in diagnosis and treatment; adequate remuneration of practitioners; and satisfactory working conditions.

Subsidies for dental students are recommended which would help increase dental personnel and permit able and qualified students of low-income families to enter for the study of dentistry.

A minimum of basic dental health services by the dentist should be included as part of "health benefits" from the start of the establishment of a health insurance system.

1. Full mouth examination services (history, x-rays, study models and diagnostic aids).
2. Prophylaxis (at least one annual treatment).
3. Fillings and plastics.
4. Removal of teeth (extraction to eliminate infection and eradicate disease).
5. Mouth replacements (considered essential).

There have never been enough dentists to serve all the workers of the country, workers were not part of the picture. Nor have workers at any time had enough money to buy the dentistry they needed, and to appreciate the excellent service American dentistry can render. He does not need statistics, he needs dental services. "What we want from you experts in the dental profession is that you tell us what can be done, and not what cannot be done and why."

"Of course, we want the best of dental care. If there is going to be any lowering of costs, we do not want it at the expense of dentists, not at the expense of the quality of services. We want dentists to be well paid, whether in their private practice or in group practice or in clinics."

Dean Appointed

Dr. O. W. Brandhorst has been appointed to succeed Dr. Benno E. Lischer, retired, as dean of the School of Dentistry of Washington University.

New York Institute Launches Fluorine Educational Program

A program to interest dentists in the importance of fluorides in dental health was launched by the New York Institute of Clinical Oral Pathology June 5 at a luncheon

held in New York City. A booklet, "Fluorine in Dental Public Health," has been mailed by the institute to every dentist in the United States.

Marshall, Texas, to Fluorinate Water Supply

The City Commission of Marshall, Texas, has recently approved an appropriation of funds for treating the city water supply with one part fluoride per million, treatment to extend over a ten-year period.

IN MEMORIAM

E. R. Rowan, of Vancouver, British Columbia, died on October 2. He was graduated from the Royal College of Dental Surgeons of Ontario in 1923 and has been practising in British Columbia since that time. Dr. Rowan served in the 231st Battalion the C.A.D.C. and the Signal Corps during the First Great War. He was at one time President of the Vancouver Dental Society.

He is survived by his widow and two daughters.

Major T. E. Cragg, of Dalhousie, New Brunswick, aged 40, died suddenly at the Fredericton Military Hospital on September 6. Major Cragg was invalided home from Overseas a few months ago after serving in the C.D.C. for three years in various theatres of war. He was graduated from Tufts Dental College, afterwards practising at Dalhousie until his enlistment.

A military funeral was held for Major Cragg at Charlottetown with a large number of people from all walks of life paying their last respects to a dear friend and comrade. He is survived by his widow and two children.

Joseph Egerton Wilkinson, of Toronto, Ontario, died October 2 in Toronto General Hospital. He was graduated from the Royal College of Dental Surgeons of

Ontario and practised for some years in Winnipeg, moving to Toronto fourteen years ago. He was a member of the Masonic Order and the Ontario Dental Association.

Dr. Wilkinson is survived by his widow, four sisters and a brother.

Robert T. Winn of Toronto, Ontario, aged 83, died October 18 at his home. He was graduated from the Royal College of Dental Surgeons of Ontario. He had been retired for a few years. He was a former resident of New Hamburg where he practised his profession for 38 years. He served for many years as a Justice of the Peace and was a member of the New Hamburg School Board for some years and acted as Chairman for several terms.

He played football with the famous Berlin Rangers. He was an Anglican and had been a resident of Toronto since 1921.

Dr. Winn is survived by a daughter, two sons and a brother.

Rene Domont of Montreal, Quebec, aged 52, died suddenly on September 30. He was born and educated in Montreal and was graduated from the University of Montreal.

Dr. Domont is survived by his widow and two sisters.

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Etudes Sur Les Affections Oculaires et Les Troubles Dentaires

Par O. BJERRUM

Docteur en Médecine

*Chef du service dentaire de l'Hôpital Universitaire de Copenhague
("Righospitalet")*

On sait que la question des rapports qui existeraient entre les affections oculaires et les troubles dentaires n'est point de date récente. Hippocrate, auteur de toutes choses, fit remarquer, jadis, que les affections dentaires pouvaient influencer sur des organes éloignés. Le terme "dent oeillère" qui est l'appellation populaire des canines, démontre, en effet, que certaines observations cliniques ont été faites dans ce domaine.

Déjà, en 1728, FAUCHARD a fait remarquer, en France, les relations existant entre des maladies dentaires et certaines affections générales. Dans cet ordre d'idée, le célèbre chirurgien français, BOYER, a attiré l'attention, en 1840 sur l'importance que présentent les dents. Je ferai remarquer, en outre qu'il y a déjà plus de 25 ans que L. DOR se serait fortement intéressé aux rapports existant entre les maladies dentaires et les affections oculaires. Cependant, c'est l'Américain ROSENOW, 1914, qui a donné à cette étude une impulsion sérieuse. Il serait superflu, bien entendu d'entrer devant vous dans les détails des recherches de ce savant.

Ce n'est pas trop dire, qu'après ROSENOW, presque tous les auteurs américains et anglais qui ont fait paraître des publications médicales et odontologiques se sont manifestés comme des adeptes fervents des théories faisant remonter tous sortes d'affections oculaires à une origine dentaire. En Europe, par contre, on a observé une attitude plus réservée, mais il est venu de *tous les pays* des informations

casuistiques éparses, relatant des liaisons entre des maladies dentaires et des affections oculaires.

(1) *Soc. Odontologique de France; Journées Franco-Belges, decembre 1930.*

La littérature nordique n'a rapporté qu'un seul cas, exposé dans un compte-rendu très sommaire, par ELANDER, paru dans une revue dentaire suédoise, 1917. Les différents auteurs sont unanimes à reconnaître aux maladies dentaires une grande importance relativement à l'origine d'affections oculaires. D'aucuns estiment, par exemple, que dans la plupart des cas, les iritis que ne sont pas d'origines syphilitique, remontent à une origine dentaire, tandis que d'autres, plus sobres dans leurs appréciations se bornent à attribuer à cette origine 10% environ des cas.

Envisagées d'un point de vue général, les affections oculaires ne peuvent tirer leur origine de maladies dentaires que par trois voies à savoir:

1o contiguïté;

2o métastases (qui suivent les vaisseaux sanguins ou lymphatiques (septicémie, si l'on veut (Monburn) et

3o réflexe.

Le premier de ces groupes comprend les maladies de la bulbe, ou de l'orbite, déterminées par les affections dentaires et dont la transmission se fait directement par les tissus connectifs; ces affections sont incontestables.

SCHMIDT-RIMPLER (Vienne, 1898) rapporte ainsi que beaucoup de malades chez lesquels une avulsion de dents a été suivie de cécité, souffraient d'une affection dans le sinus maxillaire que avait servi de voie de transmission. Cependant, la surface extérieure de la paroi osseuse du sinus maxillaire peut également amener l'inflammation jusqu'à l'oeil; il en a été ainsi dans un cas rapporté par Hirsch, où une cécité complète s'est produite après une atrophie du nerf optique en connexion avec l'extraction de la seconde prémolaire supérieure; il s'agissait dans le cas en question d'une périostite alvéolaire purulente de la surface antérieure du maxillaire supérieur qui, en franchissant le bord de l'orbite, avait pénétré dans l'orbite même où elle avait provoqué une inflammation du tissu cellulaire; celle-ci amena à son tour une névrite optique suivie d'une atrophie du nerf optique.

GRAEFE - SAEMISCH (Berlin 1925) prétend que la substance infectieuse que contiennent des cavités enflammées dans l'ambiance de la veine faciale antérieure, peut pénétrer dans l'orbite (phlegmon et thrombo-phlébite orbital), dans le sinus maxillaire et, jusqu'à la base inférieure du cerveau; cette substance infectieuse peut même déterminer, par une thrombo-phlébite, l'obstruction des vaisseaux veineux de la dure-mère de la veine ophtalmique de l'autre côté. Des observations analogues ont été faites par PICUS, par Paul PESME (1929) et par MM. LAGRANGE et MATHIEU. A l'hôpital universitaire de Copenhague nous avons vu deux cas où le rapport entre une affection dentaire et un phlegmon de l'orbite était évident (voir la revue médicale danoise *Ugeskrift for Laeger*, 1925.)

On peut voir également, dans la région des yeux, des fistules communiquant avec une inflammation de racines dentaires; or, il arrive que ces fistules affectent les symptômes d'une inflammation des glandes lacrymales. Cependant, l'orifice de ces fistules, qui partent des dents (canines ou prémolaires) s'ouvre le plus souvent un peu plus bas que ne le font les fistules originaires des glandes lacrymales. MEYER-HOFER rapporte un cas où le pus avait pénétré au travers de l'os en remontant le long de la surface de celui-ci jusqu'à canthus interne où il avait perforé la peau. Il nous a été donné d'observer un cas tout à fait analogue. Il s'agissait, en l'occurrence, d'une périodontite purulente chronique d'une canine.

Une véritable dacryocystite déterminée par une perforation directe du sac lacrymal et provoquée par un abcès dentaire a été signalée par LEMPET mais, ce sont là, sans doute, des cas excessivement rares.

On trouve également, quoique dans des cas rares, une fistule près du canthus externe, tirant son origine de prémolaires ou de molaires supérieures. Nous avons vu à l'hôpital universitaire de Copenhague, une fistule d'origine dentaire s'ouvrant tout près du canthus externe; il s'agissait d'une fillette de 14 ans, souffrant d'une kyste folliculaire, infecté par la première molaire supérieure.

Il n'est pas rare de constater une conjonctivité simple, combinée avec une périodontite aiguë, (de deuxième prémolaire) ayant provoqué un oedème particulièrement accentué avec fermeture presque complète de l'oeil gauche. Le siège du mal était d'un rouge très foncé et enflammé (injecté); il y avait collage des paupières, un flux modéré de liquide lacrymal et des douleurs au-dessus des yeux. Tous les symptômes s'atténuaient rapidement après l'extraction de la dent.

Selon BACH, une affection telle que l'herpès de la cornée est presque toujours d'origine dentaire; il a démontré que les dents cariées de ces malades renferment toujours le virus de l'herpès et il a démontré, de même, la présence de très mauvaises dents chez les malades atteints de cette affection. BACH a prouvé, également, qu'il est possible de provoquer un herpès de la cornée en inoculant la cornée de lapin des substances tirées des granulomes de racines dentaires; il est porté à croire que l'infection se fait par le trajet des nerfs jusqu'à la cornée, sachant que l'herpès se propage par les voies que suivent les nerfs. Cependant, une infection directe apportée par le malade lui-même, de la dent à l'oeil (infection par les doigts) ne serait-elle pas, tout au moins, aussi vraisemblable?

JOST, de Strasbourg, a vu la kératite se guérir par un traitement dentaire; la même constatation a été faite par V. D. STRAETEN.

Nous allons passer maintenant, à l'iritis et à l'iridocyclitis qui sont apparemment les affections oculaires qui ont intéressé de plus la grande majorité des auteurs. Les rapports existant entre les affections dentaires et l'iritis ont fourni matière à nombre d'articles notamment par E. C. ROSENOW.

Il serait superflu d'entrer ici dans le détail des théories et des expériences de ROSENOW. Ces expériences tendent à prouver, on le sait, que les cultures de microbes tirées des granulomes et d'abcès de racines dentaires chez des malades atteints simultanément d'affections oculaires, provoquent également chez les animaux d'essais, un pourcentage élevé de maladies oculaires; il estime avoir démontré, enfin, que dans certaines conditions, le streptococcus viridans se transforme en streptococcus haemolyticus. Ce point est encore sujet à discussion.

Quant à la théorie sur la propriété élective des microbes, elle ne paraît pas non plus reposer sur une base suffisamment consolidée.

HADEN, un des adeptes les plus zélés de ROSENOW, est un partisan ardent de cette théorie; cependant, l'électivité dont il s'agit n'a pas encore pu être constatée en Europe.

BACH déclare que les streptocoques, apparaissant régulièrement dans les granulomes, ne sont pas pathogènes pour les souris comme ils ne manifestent pas d'ailleurs d'électivité pour l'oeil chez les lapins. Introduits dans l'oeil, ils ne diffèrent d'aucune manière des microbes pyogènes ordinaires.

KENNETH CAMPBELL nie l'existence d'iritis rhumatisant et il estime que les iritis proviennent dans 9% des cas, d'affections oro-alimentaires.

B. F. LAING est d'avis que sur 17 cas d'iritis, 71 proviennent d'infections de la bouche.

Sir W. LANG prétend que sur 215 iritis que l'on a pu constater comme étant d'origine septique, 139 remontaient à des causes pyorrhéiques ou autrement dit dentaires.

WORTH estime que 50% des ces cas sont dus à la septicité buccale ou à une cause analogue.

FREDERICK déclare que sur 200 cas d'iritis, dans 74 cas la pyorrhée alvéolaire était la cause exclusive.

BELL, KREBS et PATTERSON signalent des cas de guérison de l'iritis par traitement dentaire.

BENEDIKT estime que 20% des iritis sont dus à des affections dentaires ou tonsillaires.

BEDDELL fait remarquer que l'iris, le corps ciliaire et la choroïde constituent les parties de l'oeil qui s'associent indiscutablement avec l'infection dentaire: les autres tissus sont rarement atteints.

LLAMAS rapporte des cas d'iritis et d'iridocyclitis avec amélioration dès le début d'un traitement exclusivement dentaire.

BACH a eu l'occasion de soumettre à une étude dentaire 50 malades atteints d'iritis et d'iridocyclitis d'origine incertaine avec l'exclusion préalable de tous les cas syphilitiques ainsi que de tous les malades manifestant cliniquement des symptômes de tuberculose.

Pour ces 50 cas, il a pu relever des constatations dentaires négatives dans 4 cas, ce qui revient à dire que les 92% des cas mis à l'étude, il a été trouvé des dents mauvaises, des périodontites chroniques ou des pyorrhée alvéolaires. Ces constatations permettent d'établir, comme conclusion, que cette étude n'a révélé rien de plus que ce que l'on trouve d'une manière générale également chez les individus qui ne souffrent pas d'affections oculaires. C'est donc bien maigre comme résultat. En ce qui concerne les iritis simples, il a fait des trouvailles dentaires positives relativement fréquentes du même côté où se trouvait l'iritis. Chez les malades souffrant d'iritis, il constate que les dents du maxillaire supérieur sont plus attaquées que celles du maxillaire inférieur, mais il fait observer que, selon MAGITOT, la carie est bien plus fréquente pour les dents de la mâchoire supérieure que pour celles de la mâchoire inférieure.

Les trouvailles dentaires positives se composaient de racines et de dents avec des granulomes dont la présence pouvait être prouvée cliniquement et opérativement. Il n'y a eu des paradentoses que pour une faible partie, soit une observation qui concorde bien avec l'expérience que nous avons acquise d'une manière générale et d'après laquelle la pyorrhée alvéolaire est relativement moins nuisible à l'ensemble de l'organisme que les abcès de racines ou les granulomes.

BACH nous dit que, dans trois cas, l'évolution clinique se trouvait caractérisée par une amélioration remarquable après avulsion.

Dans le *Journal of Am. Med. Association* 1823, IRONS et BROWN ont rendu compte d'un ensemble de 100 cas d'iritis. Sur ceux-ci, il y en avait 9 dont l'origine dentaire était apparente (abcès alvéolaire) et pour 5 parmi ces 9 cas, il fut impossible de trouver aucune autre source d'infection; dans chacun des autres 4 cas, il a pu être constaté une infection de l'amygdale ou du sinus. Des abcès dentaires furent diagnostiqués sur 43 malades dont 8 avaient été rangés dans le groupe des syphilitiques, tandis que 15 appartenaient au groupe tonsillaire; un seul présentait une affection du sinus alors qu'un groupe de 19 autres malades accusaient des infections mixtes. Dans ce dernier groupe se trouvaient deux cas indiscutables de pyorrhée alvéolaire et les auteurs ajoutent "qu'il est très possible que ces deux cas appartiennent aux iritis d'origine dentaire, bien qu'il nous ait été démontré par l'expérience acquise, "que la pyorrhée alvéolaire s'associe souvent avec des lésions métastatiques."

Dans les deux tiers des cas, il y avait plus d'une source d'infection.

RATON ET CHASSIGNOL ont fait connaître en 1928, quelques cas d'iritis dont la guérison a pu être obtenue par traitement dentaire; il en a été de même pour MONBRUN (Paris) et pour FROMAGET.

Pour 50 malades atteints d'iritis et dont les cas a été étudié en dernier lieu,

partie à l'hôpital de Copenhague, partie en dehors de l'hôpital, les données reproduites ci-dessus ont pu être relevées; il me faut ajouter, cependant, qu'aucun de ces malades n'était syphilitique, les malades de cette catégorie ayant été écartés avant le début des études. Voici les données dont il s'agit :

Trois malades présentaient des conditions dentaires absolument irréprochables.

Cinq malades étaient des edentés complets de la mâchoire supérieure et partiels de la mâchoire inférieure, les dents restantes étant parfaitement saines; l'extraction des dents manquantes avait eu lieu de nombreuses années auparavant.

Six malades accusaient une iritis double, de mauvaises dents aux deux maxillaires (périodontites chroniques, granulomes), sans que le traitement dentaire ait déterminé aucune amélioration.

36 malades étaient atteints d'iritis simple ou d'iridocyclitis; et parmi ces malades, 16 avaient des granulomes ou des périodontites chroniques du même côté que l'iritis, tandis que les 20 autres souffraient d'affections dentaires simultanément du côté droit et du côté gauche, tant au maxillaire supérieur qu'au maxillaire inférieur.

Pour six de ces malades on croyait avoir constaté une amélioration sensible après l'extraction des dents malades mais quelques mois plus tard, les malades sont revenus, souffrant d'une récédive de leur affection oculaire.

Chez un de ces malades, tous les symptômes de l'affection oculaire disparurent dans l'espace de deux jours après l'extraction d'une molaire avec un petit abcès borgne situé du même côté que l'iritis; ce malade avait souffert pendant plusieurs années de maux de tête, localisées dans la nuque; ce mal a également disparu et, depuis ce temps, c'est-à-dire repus plus de 3 ans, le malade n'a éprouvé aucune douleur et s'est trouvé guéri de l'iritis.

On aurait constaté aussi, de temps en temps, un choroiditis en connexion avec des affections dentaires, particulièrement des inflammations chroniques de prémolaires dans la moitié de la mâchoire correspondant à l'oeil malade. Des cas de ce genre, ayant accusé une amélioration sensible après extraction dentaire ont été observés une amélioration sensible après extraction dentaire ont été observés par WRITZ, GUTTMAN et d'autres.

TERSON a fait connaître un cas de neuro-rétinite hémorragique d'origine dentaire certaine (1927).

On a observé également des cas de névrite du nerf optique conjointement avec des affections dentaires (rapportés par ARCHER, HALL, WRITZ, HILLEMANN, DUTOIT, BACH et d'autres).

L. DOR écrit dans la *Semaine dentaire*, 1925, que le décollement de la rétine peut être dû à des granulomes, tandis qu'il estime que la pyorrhée alvéolaire peut provoquer une cataracte; il me paraît, cependant, que des preuves à l'appui de cette théorie nous manquent.

BACH a observé cinq cas de névrite rétrobulbaire, tous en connexion avec des lésions dentaires et il pense qu'en présence de cette affection, il convient d'éliminer toujours les fosses dentaires éventuelles, notamment, parce qu'il est porté à reconnaître des rapports étroits entre les affections dentaires, la névrite rétrobulbaire et la sclérose multiple.

Immédiatement après l'apparition de l'article de BACH, j'eus l'occasion d'examiner du point de vue dentaire deux malades souffrant d'une névrite rétrobulbaire; ces deux malades avaient, cependant, des dents parfaitement saines de sorte qu'il n'y avait point chez eux, en tout cas, de liaison entre une affection dentaire et la névrite. Ceci ne touche pas au fait — bien entendu — qu'il faut compter que souvent il existe un rapport entre une intoxication chronique et les névrites et que l'intoxication chronique est précisément la conséquence d'affections dentaires chroniques. Il est évident d'autre part, que du moment que l'on prétend avec assurance qu'une névrite

rétrobulbaire peut être provoquée par des inflammations dans le sinus ethmoïdal ou dans d'autres cavités secondaires, il faut l'intéresser aux affections dentaires et cela d'autant plus qu'il peut y avoir des liaisons étroites entre des affections dentaires et des affections ayant leur siège dans les cavités secondaires.

Les malades atteints de glaucome se plaignent parfois de douleurs dentaires qui disparaissent après les accès de ce mal; Paul BRUSSELMANN a fait la description de cas de ce genre.

Pour cause d'intoxication à la suite d'un accès de diphtérie, de typhus ou d'influenza, on peut constater pendant un certain temps une asthénopie que s'atténue progressivement pendant une période plus ou moins longue. Par ailleurs, on entend des malades souffrant d'affections dentaires chroniques tout particulièrement d'abcès purulents ou de granulomes, se plaindre d'un affaiblissement progressif de la vue cependant qu'ils se sentent fatigués et mal à l'aise; en traitant ces cas, soit par résection apicale, soit par extraction des dents malades et par l'élimination des fosses dentales, on voit revenir en peu de temps le goût de la vie. Dans ces cas, il s'agit certainement d'une intoxication constante par des microbes virulents des fosses dentales.

En terminant, je dirai quelques mots sur les affections réflexes de l'oeil pouvant avoir des attaches avec des maladies dentaires.

FROMAGET est d'avis que les granulomes dentaires peuvent occasionner des lésions oculaires réflexes, non seulement par l'agent microbien qu'ils renferment mais, en outre, par des phénomènes irritatifs locaux.

Il n'est pas rare que des malades souffrant d'une pulpite se plaignent de douleurs, au-dessus de l'oeil; il arrive même que les malades se plaignent seulement d'avoir "mal à l'oeil" quoique l'affection dont ils souffrent soit en vérité une pulpite occasionnée, le plus souvent, par une dent du maxillaire supérieur. Il arrive, inversement, que des malades atteints d'iritis ou de glaucome, tout spécialement, se plaignent de maux de dents alors que celles-ci sont parfaitement saines.

Il n'est pas rare de constater en liaison avec la pulpite, un épiphora très prononcé pendant les accès de douleur, comme il se peut également que la conjonctive se trouve injectée. Ce sont là des cas qui disparaissent instantanément, pourrais-je dire, aussitôt la dent coupable est mise en traitement.

Les inflammations dentaires peuvent provoquer aussi des douleurs dans l'oeil.

Je conclus: Aux affections dentaires se lient parfois, des affections oculaires — plus rarement que ne le pensent les auteurs anglais et américains — à ce que l'on peut juger — mais plus fréquemment, sans doute, que l'on ne le croit dans la plupart des pays européens.

Selon toute vraisemblance, il s'agit le plus souvent d'un effet toxique déterminé par des toxines microbiennes; l'explication en serait notamment la rapidité de l'effet produit par la suppression des fosses dentales; s'il s'agissait d'une infection qui se trouverait introduite dans l'oeil, je ne m'expliquerais pas, je l'avoue, son interruption immédiatement par la suppression de sa cause promordiale (c'est-à-dire de la dent). Si, par contre, on admet la théorie d'un effet toxique, il devient évident que par la suppression de la fosse dentale qui engendre le toxique, l'effet de l'intoxication devra cesser sans un délai plus ou moins long.

On se trouvera en présence également, bien entendu, de l'infection métastatique, mais il est plus difficile d'en démêler les liens puisqu'il n'est pas de rigueur, en ce cas de répéter un effet évident, malgré l'extraction. En appliquant des soins dentaires à des malades souffrant d'affections oculaires dont l'origine est inconnue, il nous faudra donc traiter les fosses dentales comme si elles étaient l'origine de l'affection oculaire. Ce sera le cas, notamment, lorsqu'il s'agit d'affections oculaires infectieuses ou toxiques, comportant un péril pour la vue et pour lesquelles on ne

connaîtrait pas d'avance des causes originaires telles que la syphilis ou la tuberculose.

Ainsi que le dit A. TERSONN, il faudra donc se rappeler "qu'une dent malade peut, si exceptionnel que cela soit, engendrer la plus grave des nevrites optiques et par son ablation, conjurer la cécité." Il convient également de ne pas oublier cet autre avertissement du même auteur: "On conserve trop de dents périlleuses pour la vue, sinon pour la vie."

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(Extrait de la Revue Odontologique.)

L'Attitude Du Dentiste Devant L'Assurance-Santé

Quelle est, me demande-t-on, l'attitude du dentiste devant le projet de loi fédéral sur l'assurance-santé?

Il va sans dire qu'en cette matière les opinions restent libres, et il n'est pas douteux qu'un certain nombre de nos confrères ne sont pas favorables à l'intervention de l'Etat dans leur domaine professionnel. Quoi qu'il en soit, l'Association Dentaire Canadienne, interprète du sentiment de l'ensemble des dentistes, a donné son adhésion au projet du Gouvernement.

La décision de l'Association trouve sa justification dans l'un des objets qu'elle se proposait dès sa fondation, en 1902: "Éclairer et diriger l'opinion publique en ce qui concerne l'hygiène de la bouche, la prophylaxie dentaire et les traitements d'ordre scientifique."

Cette préoccupation se manifestait nettement dans le mémoire soumis, le 9 juin 1942, par des délégués de l'Association, au Comité consultatif d'assurance-santé du Ministère des Pensions et de la Santé publique, ainsi que dans les dépositions des représentants de l'Association devant le Comité de la Sécurité sociale de la Chambre des communes, le 11 mai 1943. C'est encore cet aspect de la question qu'envisageait le Bureau des délégués de l'Association, siégeant à Montréal au mois d'octobre 1943, lorsqu'il adoptait à l'unanimité la motion suivante: "Il est résolu que le Bureau des délégués, réuni en assemblée plénière ce dix-neuvième jour d'octobre 1943, réaffirme sa conviction que le plan d'assurance-santé, tel que soumis au Gouvernement fédéral par le Comité d'assurance-santé de l'Association Dentaire

Canadienne, est le meilleur moyen d'aborder le problème que posent les maladies d'origine dentaire au Canada."

Des recherches plus poussées permettent de mieux apprécier, surtout depuis un certain nombre d'années, les ravages qu'exercent les affections dentaires. Il est évident qu'une mauvaise denture affecte directement la fonction de la digestion et entraîne ainsi des nombreux désordres. Mais ses effets sont beaucoup plus étendus et plus divers. Lorsqu'un siège d'infection se forme dans la bouche, il en résulte fréquemment des répercussions inattendues; aussi est-il souvent possible de découvrir que la carie dentaire ou quelque autre source d'infection localisée dans la bouche est la cause de troubles, parfois très graves, qui se manifestent dans des régions qui n'ont apparemment aucun rapport avec cette partie de l'organisme.

Si l'on veut se rendre compte de l'étendue du mal, il suffit de prendre connaissance des deux faits suivants. Au début de la guerre, on a découvert qu'environ 23 pour cent des hommes assujettis au service militaire y étaient incapables à cause de quelque affection dentaire. D'autre part, des enquêtes ont révélé que, dans les municipalités où il n'y a aucun service dentaire dans les écoles, de 95 à 98 pour cent des élèves sont atteints de carie des dents. Dans les municipalités où un service de ce genre fonctionne depuis quelques années, cette proportion a été considérablement réduite; elle n'est plus que de 40 à 50 pour cent.

On voit par là l'efficacité de l'éducation et de la prévention. L'Association Dentaire Canadienne mène depuis longtemps des campagnes de propagande dans ce sens, et le Collège des Chirurgiens Dentistes de la Province de Québec, avec le concours du Gouvernement provincial, a pris aussi des initiatives de même nature: mais les moyens dont ils disposent, l'un et l'autre, sont trop disproportionnés à l'importance de la tâche à accomplir pour qu'il soit possible d'en attendre des résultats suffisants. La modicité relative de leurs ressources ne leur permet pas d'espérer, malgré toutes les bonnes volontés qu'ils groupent, de gagner de vitesse le progrès du mal. Pour y réussir, il faudrait entreprendre la lutte sur le plan national et avec de puissants moyens d'action. C'est là, sans doute, l'une des principales raisons qui ont motivé l'adhésion de l'Association Dentaire Canadienne au plan d'assurance-santé du Gouvernement canadien.

En se déclarant disposée à collaborer avec le pouvoir public, l'Association est soucieuse, bien entendu, de favoriser les progrès de l'art dentaire et de protéger les légitimes intérêts de la profession. On en trouve la preuve dans les principes qu'elle adoptait le 18 mai 1942, aussi bien que dans le mémoire qu'elle a soumis au Ministère intéressé et dans les dépositions de ses délégués devant le Comité de la Sécurité sociale de la Chambre des communes.

Dans son exposé de principes, l'Association demande que le plan proposé s'étende à tout le pays, mais que le Gouvernement de chaque province reste libre de l'adopter ou de l'écarter et qu'il ait toute latitude de déterminer les méthodes qui répondraient le mieux aux besoins de sa population quant à l'hygiène dentaire et à l'administration des fonds affectés à ce plan. Elle exprime l'avis que celui-ci devrait être administré par le Gouvernement provincial en collaboration avec le Bureau dentaire provincial et en conformité du statut régissant la pratique de l'art dentaire présentement en vigueur dans chaque province. Elle précise que les interventions devront se faire dans le cabinet du dentiste concerné, sauf dans les cas où les circonstances ne s'y prêteraient pas. Elle déclare que l'application du plan et la répartition des fonds devront être assurées aux termes d'une convention entre le Gouvernement provincial et le Bureau dentaire provincial.

L'Association recommande que les trois dispositions ci-dessous soient incorporées au plan:

- a) Tout dentiste qualifié et en règle sera éligible aux termes du plan.
- b) Le patient sera libre de choisir son dentiste et le dentiste aura le droit de

refuser ses soins à tout patient, pour des raisons d'ordre géographique ou professionnel.

- c) Le service dentaire consistera essentiellement à mettre à la disposition des intéressés les services du dentiste engagé dans la pratique générale et ce sera le dentiste lui-même qui, le cas échéant, dirigera les patients requérant des soins spéciaux.

Enfin, dans cet énoncé qui expose son point de vue, l'Association formule d'autres propositions d'un caractère pratique. Elle demande, notamment, que le plan fasse une plus large place à la dentisterie préventive qu'à la dentisterie restaurative; qu'il ne renferme rien qui puisse faire obstacle au développement et au progrès de la compétence professionnelle reconnue du dentiste; qu'il prévoit des mesures propres à favoriser et à subventionner les travaux de recherche en dentisterie; que tout plan adopté rende le service dentaire accessible aux pauvres aussi bien qu'aux personnes qui seraient en état de verser des contributions; que la profession dentaire ait le privilège de déterminer la nécessité et l'étendue des soins dentaires à donner.

Dans son mémoire du 9 juin 1942, l'Association Dentaire Canadienne faisait d'abord observer qu'elle n'entendait pas recommander la mise en vigueur d'un plan d'assurance-santé avant que cette question ait fait l'objet d'études beaucoup plus complètes; mais elle exprimait ensuite l'opinion qu'il serait inopportun de promulguer une législation de cette nature si elle ne comportait pas l'établissement du service dentaire d'un caractère essentiellement préventif qu'elle préconise dans son mémoire. "Nous ne croyons pas, faisaient remarquer les auteurs de cet exposé, qu'un plan, quel qu'il soit, puisse enrayer complètement les affections dentaires; mais nous sommes fermement convaincus que les mesures que nous suggérons en limiteraient l'étendue autant qu'il est possible de le faire."

Le moyen à la fois le plus pratique et le plus économique de combattre avec succès les affections dentaires, c'est de traiter et d'éduquer les individus dès l'enfance. Tous les fonctionnaires des services d'hygiène connaissent les ravages de la carie dentaire chez les enfants; ils sont si considérables que l'on a dit que c'est une honte nationale. L'insuffisance des services dentaires dans les écoles tient, dans bien des cas, au manque de ressources. L'apport des moyens financiers nécessaires améliorerait sensiblement les conditions hygiéniques de la bouche et, par conséquent, l'état de santé des générations nouvelles. L'Association n'entend pas affirmer que les dentistes seraient en mesure de donner leurs soins à toutes les personnes qui seraient assurées aux termes du plan qu'elle suggère, parce qu'ils ne sont pas assez nombreux pour assumer une aussi lourde tâche; mais elle s'engage à collaborer, dans toute la mesure de ses moyens, à la mise à exécution de ce plan.

Au cas où une loi sur l'assurance-santé serait promulguée au Canada, l'Association préconiserait l'établissement d'un régime d'assurance dentaire obligatoire pour tous les enfants jusqu'à l'âge de seize ans.

D'après le plan de l'Association, dans chaque province, le Lieutenant-Gouverneur-en-Conseil, en collaboration avec le Bureau dentaire provincial, établirait un Comité dentaire central et des comités régionaux. Ceux-ci seraient responsables au directeur de l'assurance-santé en ce qui concerne l'administration de tous les services dentaires ainsi que toutes les matières relatives à la pratique de la dentisterie aux termes de la Loi sur l'assurance-santé.

Il serait créé un Conseil provincial de l'assurance santé groupant des délégués des médecins, des dentistes, des infirmières, des pharmaciens et des hôpitaux, ainsi que des représentants de l'industrie, du travail et des groupements féminins ruraux et urbains. Toutefois, la majorité devrait se composer de médecins et de dentistes. Il serait créé aussi un Conseil fédéral de l'assurance-santé dont le personnel serait formé de la même manière. Une commission serait constituée aux fins

d'assurer l'application de la loi et, au cas où la nomination d'inspecteurs deviendrait nécessaire, ceux-ci devraient se recruter parmi les dentistes.

Les assurés auraient droit aux avantages ci-dessous :

1. Examen dentaire tous les six mois.
2. Prophylaxie tous les six mois, au besoin.
3. Emploi de matières plastiques pour les obturations.
4. Emploi de matériaux et d'appareils spéciaux dans les traitements des cas d'accident.
5. Extractions et chirurgie dentaire lorsque des interventions de cette nature seraient nécessaires.
6. Recours à l'anesthésie, au besoin.
7. Mise à la disposition du patient des services spéciaux qu'exigerait son état.
8. Recours à la radiographie, lorsque cela serait jugé nécessaire.
9. Emploi de tous autres matériaux qui pourraient être requis dans la pratique courante de la dentisterie pour enfants.

Les honoraires du dentiste seraient payés intégralement à même le fonds d'assurance, selon l'échelle recommandée par le Bureau dentaire provincial.

La limite d'âge des assurés pourrait être portée à 17 ans et au delà, si l'on jugeait à propos de le faire de temps en temps, en tenant compte du personnel disponible, des ressources financières et de considérations d'ordre général. Il convient de noter que les assurés bénéficiant de l'avancement de la limite d'âge auraient déjà reçu des soins dentaires, de sorte que l'on ne se trouverait pas en présence de besoins accumulés.

L'Association Dentaire Canadienne appuie ce plan parce qu'elle y voit le seul moyen pratique et à la portée de la profession de donner le service nécessaire avec le personnel restreint dont elle dispose à l'heure actuelle. La profession ne voudrait pas conclure une entente comportant des exigences telles qu'elle ne pourrait y satisfaire, même si les ressources financières nécessaires étaient mises à sa disposition. L'association se déclare convaincue que toute tentative en vue d'assumer des services qu'il serait impossible de rendre aurait pour résultat non seulement de compromettre tout le plan, mais encore de discréditer la profession elle-même.

En prévision des demandes qui résulteront de l'extension du plan d'assurance-santé dans l'avenir, l'Association insérerait dans son mémoire les propositions suivantes :

1. Allocation d'une subvention annuelle aux fins de restreindre l'étendue des affections dentaires.
2. Allocation d'une subvention annuelle suffisante dans l'objet de faire l'éducation du public et de la profession en matière d'hygiène dentaire.
3. Allocation de subsides aux Facultés de chirurgie dentaire afin de les mettre en mesure de faire face à l'énorme augmentation de leur personnel que nécessitera, à l'avenir, l'accroissement du nombre des assurés.
4. Ajustement des avantages que confère le plan aux assurés et de l'échelle de rémunération, en ce qui concerne la dentisterie, au moment où la limite d'âge sera relevée.

Le 11 mai 1943, des délégués de l'Association Dentaire Canadienne se présentaient devant le Comité de la Sécurité de la Chambre des communes et soumettaient le mémoire que nous venons d'analyser brièvement, et auquel ils apportaient certaines précisions.

Les délégués déclaraient que, de l'avis de l'Association, l'initiative privée et la liberté de choix sont indispensables à la réussite de tout plan d'assurance-santé au Canada. Le patient doit être libre de choisir son dentiste et le dentiste, son patient. Il faut sauvegarder l'indépendance de la profession, si l'on ne veut pas entraver ses progrès.

La mise à exécution d'un plan d'assurance santé, ont fait observer des délégués, devrait être propre à résoudre le problème du rétablissement de la profession dentaire

après la guerre. Le dentiste qui est attaché à l'heure actuelle aux forces armées aurait, au retour de la paix, une place assurée dans la pratique civile. Il y a lieu de croire que le nombre des dentistes aura considérablement augmenté à la fin des hostilités, ainsi que cela s'est vu à l'époque de la dernière guerre. Cette situation devrait faciliter la mise en œuvre de ce plan qui étendrait à une plus grande partie de la population le bénéfice d'un service dentaire.

Les délégués ont signalé les dangers auxquels on s'exposerait si l'on confiait l'administration de matières relevant de la dentisterie à des personnes qui ne connaissent rien ou à peu près rien de cette profession. Méconnaître les intérêts de la profession, ce serait causer un préjudice aux assurés. La profession dentaire du Canada est désireuse de collaborer à un plan d'assurance-santé, mais elle n'entend pas être l'un des rouages d'un mode d'administration dont l'expérience a prouvé qu'il n'est pas satisfaisant.

Le fait de limiter aux enfants d'âge scolaire le bénéfice d'un service dentaire augmente les chances de succès du plan, a fait remarquer le Dr Armand Fortier, président du Collège des Chirugiens-Dentistes de la Province de Québec. On a constaté, notamment en Angleterre, qu'on ne saurait étendre ce service à toute la famille sans compromettre la réussite du plan. D'ailleurs, en traitant les enfants et en faisant leur éducation, on peut espérer qu'ils conserveront toute leur vie les habitudes d'hygiène qu'on leur aura inculquées. Vous reconnaîtrez, a ajouté le Dr Fortier, que la dentisterie a fait, depuis un siècle qu'elle existe en tant que spécialité, des progrès considérables. Il est logique d'en conclure que ces progrès se maintiendront, s'accroîtront sous un régime d'autonomie. Si, au contraire, un plan d'assurance-santé lui enlevait son autonomie, il y aurait lieu de craindre que la profession ne perde le goût de l'initiative, que lui a donné la liberté, et qu'elle ne soit plus que le simple rouage d'un mécanisme. En terminant, le président du Collège, après avoir indiqué l'importance et la complexité des problèmes qui se poseront, a suggéré que le Gouvernement envisage l'opportunité de nommer, au Ministère des Pensions et de la Santé publique, un sous-ministre de l'hygiène dentaire.

L'Association Dentaire Canadienne, qui groupe les dentistes de toutes les provinces, s'est engagée à collaborer avec le Gouvernement dans l'application de la loi sur l'assurance-santé qu'il se propose de mettre en vigueur. Rien ne saurait mieux attester à la fois la sincérité des intentions de l'Association et l'efficacité de son concours que le plan qu'elle a élaboré à ces fins. Si le législateur, tenant compte des recommandations de l'Association, confie aux dentistes le rôle et les fonctions qui leur reviennent, il ne paraît pas douteux que la loi sur l'assurance-santé, tout en sauvegardant le prestige et les intérêts de la profession et en favorisant le progrès de l'art dentaire, contribuera à l'amélioration de l'hygiène de la bouche et, par conséquent, de la santé publique.

ERNEST CHARRON

IN MEMORIAM

Nous avons le regret d'annoncer la mort des Docteurs, René Domont et Georges Roy.

Nous prions les familles de ces regrettés confrères d'accepter nos sincères condoléances.

La Rédaction



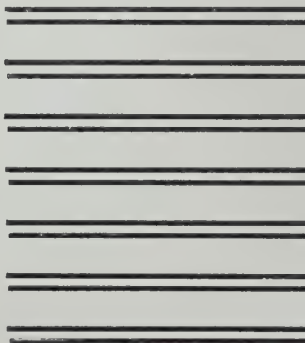
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SUNRISE OVER THE BAY OF BENGAL



R. P. LOWERY, D.D.S.
Toronto, Ontario

Chairman of the Journal Committee of the
Canadian Dental Association.



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OPERATIVE PROCEDURE FOR GOLD INLAYS*

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SO MUCH has been said and written on the subject of gold inlays, that it would be presumptuous to think that one could add anything new. However, there are some essentials in the complete procedure which are so important for success, that perhaps it will be of some benefit to review and reconsider them. It is, therefore, the intent of this paper to summarize, rather briefly, salient factors in refined operative procedure, particularly as they apply to the restoration of lost tooth structure with gold inlays.

The gold inlay is generally recognized as being, potentially, one of the superior restorations in dentistry. The qualifying term—potentially—is necessary. Unless the entire procedure, from cavity preparation through to the final finishing of the margins of the cemented casting, is conducted carefully and with exactitude, the gold inlay can be one of the worst nostrums at the disposal of the dentist. The fact that a tooth carries an inlay so often seems to clear it of suspicion of further break-down; yet if the cavity has not been properly prepared, if all caries has not been removed, if an exact, closely fitted casting has not been made, or if even a good casting has not been properly cemented in a clean, dry cavity and the margins definitely fin-

ished—then service to the patient has not been discharged properly.

Why is it that so many inlays fail? Surely it is not from a purposeful shoddiness of technique, or lack of desire to place fine restorations. Nor is it because of any dearth of adequate means to properly produce accurate castings. Is it not due rather to acquiring gradually a habit of seeking short cuts in procedure to such a degree that minutes are saved at the expense of efficiency? We would not be human if we did not seek easier methods of accomplishing tasks. Yet care must be taken to regularly assess our current techniques in all operative procedures, and to discard any tendency to produce poorer results. Let us conduct such a mental inventory.

DIAGNOSIS

Before commencing any dental operative procedure an accurate diagnosis must be made of prevailing conditions, from which a plan of treatment is determined. All diagnostic facilities should be utilized including verbal, ocular, instrumental, and radiographic.

A reminder, with special emphasis, is that once a radiogram is made of a tooth, it is not automatically interpreted by a hasty glance at a wet film. Radiograms must be studied carefully,

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both with and without magnification. It should be recalled that the amount of destroyed tooth structure is minimized and never exaggerated in an accurate radiogram. The small V-shaped area of decalcification that reaches the dento-enamel junction, is not just a round superficial spot but an area as wide as shown in the radiogram and at least two mm. long. When such decalcification has reached the dento-enamel junction it should be filled. Do not jeopardize the patient's welfare, or your own professional standing, by ignoring such areas. If they have only partially penetrated the thickness of the enamel, advise the patient of their presence, and be sure that they are kept under periodic radiographic observation. Any other procedure in this day, might well be considered criminal negligence.

A tooth must be considered as a unit and also as a component part of the mouth. There is little point in restoring the original form of a tooth which is malposed in the arch, when it might just as readily be made to function by altering its shape to conform to the requirements of the mouth in which it is situated.

Consider also whether the tooth will be better served by including all carious areas in one restoration or if tooth structure may be saved by placing two or more restorations in the one tooth. For example, it is frequently better to make separate restorations when both mesial and distal surfaces are involved in the upper first molar, lower first molar, and lower first bicuspid.

ANAESTHESIA

After fixing upon the course of treatment, and in this instance, a gold inlay being the choice of restoration, the first step in actual procedure is to secure adequate anaesthesia of the parts to be worked upon. There is no good reason why any and all dental procedures should not be painless. The percentage of cases is negligible in which anaesthesia will not be a dis-

tinct boon to both patient and dentist. With simplified, proper armamentarium and technique, there should be no discomfort to the patient either during or after the procedure. In most cases local anaesthesia permits more care and attention to detail than does analgesia. Sharpen needles after each use, and insert them gently into stretched, low-sensitivity tissues, which have first been treated with a surface anaesthetic, and there will be no objections from the patient. Use alkalized solution at body temperature, injected very slowly, and there will be no serious after-soreness. Supra-periosteal infiltration for upper teeth, and a mandibular block for lower teeth will simplify technique requirements.

RUBBER DAM

After administering the anaesthetic, the teeth to be included in the field of operation should be freed of mucous plaques and calcareous deposits. This will produce a clean field, which will prevent extraneous material being carried under the free gum margin when applying the rubber dam.

The placing of the rubber dam is the next step in procedure. This is one of the most neglected yet one of the most essential requirements for fine operative technique. Aside from the pleasure for the operator to work in a field that is dry and clean, free of saliva, wet cotton rolls and a curious tongue, consider the advantages of a rubber dam. With co-ordinated effort by the operator and assistant, in only two or three minutes time, a field of operation can be obtained in which the lips and cheeks are retracted and supported; the throat is protected from debris; the tongue is controlled from the standpoint of both vocalizing and inquisitiveness; the free gum tissues are retracted to expose the otherwise inaccessible gingival margin of a cavity; the cavity can be more readily and thoroughly cleaned and sterilized; defects in the tooth structure can be seen which other-

wise would escape detection; imperfections in cavity preparation may be seen and corrected; proper conditions of the cavity may be obtained for the placing of the restoration; finishing and polishing of the margins of the filling may be accomplished with more ease and assurance of perfection and with less danger of harming the surrounding gingival tissues. Another selling-point for the rubber dam is that with time at a premium, the dam is a definite time-saver as may be proven by comparing the few minutes necessary to place one with the countless minutes lost by following the alternative "squirt and spit" technique.

A simple routine technique readily acquired, will standardize procedure to such an extent that it becomes second nature to utilize the time between administering the local anaesthetic and the onset of effective anaesthesia by placing a dam.

CAVITY PREPARATION

With a suitable field obtained, the cavity is prepared. Here again, simplified, standardized procedure is a time saver. There are any number of adequate techniques of instrumentation. Each serves the purpose if the end result is obtained with clean orderly dispatch.

General considerations to be followed are the use of properly made, well - sharpened instruments, new sharp burs, clean true diamond points. Operating in a dry field is to be preferred to keeping water playing over the tooth. An exception to this is the case of reducing the bulk of tooth structure when making a preparation for a full crown, or when clearing the bite for any extensive preparation. This is done more effectively under water with diamond or carborundum stones before placing the rubber dam.

Great care should be exercised when working in a dry field not to injure the pulp of the tooth by too industriously subjecting the cavity to unnecessary blasts of air, either cold or hot. Nor should the cavity be so

desiccated that even soft carious dentine feels hard under the excavator. To avoid the occurrence of this latter error it should be routine procedure before the toilet of the cavity to apply a drop of moisture to the cavity and then go over the entire surface with a sharp excavator. The picture to be kept in mind while operating upon a tooth is to strive to keep it as nearly as possible at body temperature and with its normal water content. Thus when large burs or stones are used and more heat generated, more cool air should be used to dissipate the heat; when small burs or hand instruments are being used, intermittent warm air should be applied.

In developing the actual cavity preparation, the histological structure of the tooth must be kept in mind. No tooth should be operated upon without a radiogram. So often pulp chambers are so abnormally large that even the shallowest of cavity preparations will endanger the life of the pulp unless adequate protective measures are taken. Occasionally abnormal pulp recession will leave a horn of the pulp chamber in a location which might be involved in extensive cavity preparation unless the danger is realized. The preparation should be cut with definite straight walls, sharp angles, and a flat base. Undetermined and unsupported enamel should be removed. Retention and resistance form should also be definite, but with the strength of the gold alloy in mind, less bulk is necessary and consequently less tooth structure needs to be removed. Recall also that too much gold does nothing to enhance beauty, and confine visible margins as much as is consistent with the principle of extension to immune areas. Lightly cove or round the axio-pulpal line angles to strengthen the casting. Carry the gingival bevel around the bucco-gingival and linguo-gingival angles, creating a bevelled angle in an otherwise vulnerable area.

Undercuts which result from removal of last traces of carious den-

tine are avoided or eliminated by either leaving the caries till the impression is taken, and then removing it completely, or by removing it and filling the undercut so formed by a temporary application of modelling compound until the impression is taken, or by filling the area with a mix of oxyphosphate cement in which is incorporated some silver alloy fillings, and trimming to final cavity form.

The finish of the cavity walls is best made by a final planing with freshly sharpened instruments, cuttle discs, and fine diamond or carborundum points.

IMPRESSION

The next step in the procedure is the taking of the impression, and/or the preparation of the pattern. Dental inlays are so relatively small that even very slight inaccuracies in an impression or pattern produce ill-fitting castings. As has often been said, a casting can be no better than the pattern. Therefore, a technique should be adopted which pays attention to details, and yet is free of superfluous frills. Each step should have a logical explanation. Time is important and should be saved whenever possible through standardization of procedure.

Fundamentally there are three methods of obtaining a pattern — direct, indirect, and indirect-direct. Each has its indications and contra-indications. The method to be the choice for any given case should be determined by a combination of considerations:

1. The ability of the operator with the technique.

Some men become so adept with a particular method that they can accomplish results in some cases which would be extremely difficult if not impossible for one who is accustomed to some entirely different procedure.

2. The type of patient.

The cooperation of the patient, his

outlook on the procedure, and his time schedule, often enter into the picture.

3. The type of cavity and the location of it in the mouth.

The extent of destruction of tooth structure, and the location of the tooth in the mouth are predominant factors in determining technique. A cavity of minimal extension, such as a proximal in a bicuspid, can be handled with a direct technique, often with less cutting of tooth structure than would be possible with the indirect method. On the other hand, extensive destruction of a molar or a preparation extending far gingivally, or a slice preparation, or full cast crown, are examples of cases where only the indirect technique is adequate. The indirect-direct technique can be used in almost any case. Its particular indication however is for complex cavities and occasionally for full cast crowns. For delicate preparations with a slice or pin, or where there is abnormal gingival extension, the disadvantages as a rule outweigh the advantages.

4. The type of assistance available.

This factor is a definite consideration. With a well trained chair assistant, using a mouth lamp to provide direct light or transillumination and exercising judicious use of the air syringe, the direct technique is particularly difficult and time consuming if accurate results are to be obtained. Such assistance is of course indispensable for any and all dental operative procedures, if they are to be accomplished with care and dispatch, but its absence is felt especially in the direct pattern technique.

The question may be summed up by stating that the operator should be equipped with the necessary knowledge and ability to obtain the impression or pattern by whichever method will best serve the case at hand. However, in the hands of the average man, the indirect technique is preferable in the great percentage of cases, if the wax is to be manipu-

lated with the greatest control of distortion.

If the decision is to make the pattern by the direct technique, it is best done with the dam still in place. If the indirect technique is to be followed the dam is removed before taking the impression, but after the copper band has been trimmed and fitted.

TEMPORARY PROTECTION

Before dismissing the patient, the prepared tooth must be adequately protected. This may be done by the use of a temporary inlay of low fusing base alloy, a temporary cement, or baseplate gutta percha. For anterior three-quarter crowns or where the temporary protection must be in for some time, the temporary metal inlay is the method of choice and is quickly made. For deep cavities or where the outer circumference of the tooth is involved one of the temporary cements having a zinc oxide base, either alone or in conjunction with a copper or aluminum band, is preferred. In the cavity of average depth in which protection is required for a short interval, baseplate gutta-percha gives good protection. It may be manipulated at a tolerable temperature to the tooth by dipping in eucalyptol. It is much more satisfactory than temporary stopping. Of course, care must be taken not to let it impinge upon the soft tissues, nor to leave it in supra-occlusion or a tender tooth will result.

PRELIMINARY ATTENTION TO THE CASTINGS

Preliminary attention to the casting before fitting it at the second appointment includes preliminary finishing of the external surface; also a close inspection of the cavo-surface for nodules which are often present even though microscopic in size. The next step is to create space for the cementing medium. This is done either by etching the cavo-surface of the inlay to within one millimetre of the margins with aqua regia, or by grinding

lightly the axial and pulpal surfaces of the inlay. It is an essential step for, otherwise, if the casting is accurate and close fitting as it should be, then interposing a layer of cement will preclude seating the inlay completely to place, and further a valuable means of pulp protection against thermal shock would be lost.

INSERTION AND FINISH

At the second appointment, if the tooth is particularly sensitive, local anaesthesia is again administered. The temporary protection is removed and the cavity carefully inspected for any remaining debris. The inlay is then fitted. Contact points are adjusted. The accuracy of the fit is closely checked, particularly at the gingival margins by the aid of a mouth lamp. If by chance it is a misfit, discard it and make a new inlay. The patient will think more of the man who is honest, and the operator will have a higher self regard, if mistakes are admitted. The man who *never* has to remake an inlay doesn't make many or is not sufficiently awake to human limitations to be an operator in whom one can have a great deal of confidence. If there is any doubt as to the fit of the casting, take a bitewing radiogram of it in place before cementing. By the use of a rapid-processing film, a quick check may thus be made, and a future makeover avoided. When the casting has been accepted for fit, occlusion is checked and corrected if necessary. Margins are then dressed down with fine stones, discs, inlay finishing burs, and files. The inlay is then removed, occlusal and peripheral anatomy is completed and the surfaces polished thoroughly and carefully. The assistant keeping a blast of cold air on the casting at this stage greatly reduces the time element. The inlay is then cleansed of all debris by brushing with soap and water and dried.

The rubber dam is then applied and while the final toilet of the cavity is being made, the assistant completes

the preparation of the casting for cementation. This consists of going over the inlay with a cotton pellet and carbon tetrachloride to remove any traces of grease or oil or polish; and then applying a thin film of vaseline over the outer surface, keeping well away from the margins.

To complete preparation of the tooth to receive the inlay after the dam is placed a definitely planned procedure must be carried out. The following is offered as one which has given satisfactory results for a number of years. The cavity is flooded with a fresh mixture of five drops of hydrogen peroxide and two drops of household ammonia. If passed through a flame before being carried to the tooth thermal shock will be avoided. The effervescence of this alkaline mixture loosens debris in the cavity. The cavity is wiped dry. This is followed with a pellet full of warm water. Again the cavity is dried and the entire surface gone over carefully with an excavator to assure removal of any carious or extraneous material. The cavity surface is then sterilized in so far as that is possible, by the application of an effective chemical agent such as melted thymol crystals, phenol, or beechwood creosote. This is dried into the dentine with warm air. If any of the margins have been contacted, wipe them carefully with carbon tetrachloride. The procedure now depends upon the depth of the cavity. If it is of minimal depth no further treatment is necessary. If somewhat deeper a cavity varnish may be applied to the deeper portion. If there is a great deal of dental destruction, a base of a heavy paste of zinc oxide seven parts with thymol iodide one part, mixed with eugenol, may be placed in the deep portion. The cavity is now ready to receive the casting.

The cement of choice is placed upon a cool slab, and about two minutes prior to the time of its anticipated need a portion of powder the size of an apple seed is incorporated into the

liquid. This procedure produces a delayed setting time and enables a heavier mix of cement to be used than would otherwise be possible. The cement when mixed to the desired consistency is carried to the cavity with a fine instrument, care being taken that cement is conveyed to the depth of all pin-holes and angles without trapping any air. Cement is also flowed over the entire cavo-surface of the casting, which is then carried to the cavity and pressed home. Final seating is accomplished by heavy hand pressure with an orangewood stick assisted by light blows from a mallet in the hands of the assistant. Pressure should be heavy and sustained until the initial set of the cement is complete. While the pressure is maintained the margins are spun out by the use of a rounded hand instrument such as a Gillett spinning instrument, or a burnisher, to eliminate even a film thickness of cement on the surface.

When the cement has set, the vaseline on the surface of the inlay permits the excess cement to be flicked off with very little marring of the inlay surface. All margins are carefully checked and finished with extra fine cuttle discs and strips. The dam is removed and final polishing is done with a paste of lap emery and finally with a dry final polish carried on rubber cups and mounted brushes in the handpiece. The tissues are then transilluminated with a mouth lamp and a fine explorer used to be sure that no particles of cement or polishing material have been worked under the free gum margin. The operation may then be considered complete.

CONCLUSION

In this overall recapitulation, an attempt has been made to stress two cardinal points. First, the need for the acquisition and practice of simplified procedures which are standardized as much as possible for each operation of similar type, so as to eliminate wasted time and effort.

Secondly, the insistence on attention to detail from start to finish, for carelessness in just one step in a procedure will endanger the end result. And so it is repeated that in fine oper-

ative dentistry, the patient and the profession will be served as they deserve only by striving toward the ideal of perfection in each and every operation.

PENICILLIN—ITS USE FOR THE TREATMENT OF VINCENT'S INFECTION*

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For over a year the writer has been attached to the Navy in Newfoundland and Canada. This has afforded the opportunity of making comparisons of the oral health of the Naval personnel on entering the Service, after being in Newfoundland, and after being at sea.

Ship's personnel are particularly susceptible to attacks of Vincent's Infection more correctly termed Necrotic Gingivitis, and commonly called 'Trench Mouth'. The reasons for the greater susceptibility are:

1. Accommodations are cramped.
2. The diet is lacking in fresh fruit and vegetables, and is rich in starches and sugar.
3. The distilled water is usually only obtainable for three hours a day, so that conditions are not conducive for the crew, who stand four-hour watches, to properly clean their teeth, especially if they are the slightest bit careless about oral hygiene.
4. Fifty percent of the crew eat from one to five chocolate bars a day. When the weather is rough, often sugar in its various forms, constitutes the major proportion of their diet.

In order that Naval personnel would not have to be drafted ashore for Vin-

cent's Infection, a rapid successful treatment was desired. Penicillin, injected intramuscularly and incorporated in the Canadian Dental Corps periodontal pack, was tried with result on the whole, better than one could have hoped for.

Successful cures of acute cases in thirty-six to forty-eight hours have been obtained when this periodontal penicillin pack is used. A number of investigators have reported excellent results from the use of penicillin either administered intramuscularly or topically or in the form of lozenges.

The advantages of the periodontal pack over these other methods are:

1. Intramuscular injections are painful.
2. Sprays take a great deal of chair time.
3. When used in the pack, the penicillin is in contact with the area for a longer time and therefore less penicillin is required.
4. The mechanical action of the pack reduces the swelling, exposes the sub-gingival calculus so that thorough scaling can be accomplished.
5. The therapeutic action of the pack restores the gingiva to healthy pink tissue. Its use

*A report on the use of penicillin for the treatment of Vincent's infection of Naval personnel based in Newfoundland. Aetiology and treatment discussed.

after gingivectomy speeds up the healing process.

6. Unless the local irritating factors are eliminated, the infection will return.
7. A rapid cure results with less chance of recurrence, as it eliminates periodontal pockets.
8. Necessary extractions can be made without waiting for lengthy treatment, as is necessary when using drugs.
9. The pack protects the gingiva from irritants, quickly eliminates the foul odour and bad taste. The penicillin apparently has a beneficial effect on the gingival tissue. It imparts better tone and has a remarkable healing quality. (A. E. Strock, J.A.D.A. Sept. 1, 1944).
10. Many drugs merely reduce the acute stage to a chronic one.

PENICILLIN—ITS PROPERTIES AND DOSAGE

Penicillin is dispensed in bottles containing one hundred thousand Oxford units of the sodium salt which is brown in colour. Penicillin is synergistic with other drugs, particularly with the sulpha group. It is very soluble in water. For injections, 10 c.c. of sterile-physiological saline is added to produce the maximum concentration of 10,000 units per c.c. The solution must be stored at a temperature from 4 degrees to 10 degrees C. (50 degrees F.). This can be kept for three or four days. At higher temperatures, it should be made up daily.

The action of penicillin is not impaired by the presence of pus, serum, blood or the product of tissue autolysis. However, it is incompatible with oxidizing agents such as hydrogen peroxide. Penicillin has an unpleasant odour and taste. A few drops of the solution on the skin will continue to give off an unpleasant odour after repeated washings with tincture of green soap. Eugenol and alphamel counteract these unpleasant properties. The usual dose

for injections is 25,000 units (2½ c.c.) in physiological saline every three hours (into the buttocks). It rapidly disappears from the blood.

Penicillin can be used for the cure of Vincent's Infection in various ways. However, not any of the methods, except with the pack, aid in removing the irritating factors and only a small amount of penicillin is then used. Penicillin is not a cure-all; it is merely an adjunct to good dental treatment and care. Let us repeat, removal of calculus is essential and irritation from all sources must be eliminated.

It has been reported that the spray requires an average of 117,000 units with an average of 3% failures. The mouth wash requires 170,000 units with an average of 4% failures. The gelatine pastilles require renewal every three-quarters of an hour for five days with 500 units per pastille. Intramuscular injections require 100,000 to 3,000,000 units for a cure.

THE AETIOLOGY OF VINCENT'S INFECTION

There are various theories as to the cause of Vincent's Infection. Healthy mouths rarely, if ever, contract 'trench mouth'; the gingiva must be irritated, inflamed, and its vitality and resistance lowered before the disease can get started. Some investigators believe that the spirilla and fusiform bacilli are the initial invaders and are the sole cause. Others believe that these organisms are the cause but not the initial invaders. The severity depends on their increase. Most investigators feel that the organisms are not pathogenic unless the tissue vitality is lowered. Some factor then goes to work making them pathogenic.

The writer believes that there is an alteration in their symbiotic relationship and that an unknown factor activates them, making them pathogenic. The severity depends on the number of organisms present and that a large increase in the fusiform bacilli results in an acute case. From routine smears,

subacute cases have a larger number of spirilla with a smaller proportion of fusiform bacilli than in acute cases. K. Thoma has made the same observation. The unknown factor could be a virus, fungi, a strep or an enzyme produced by the inflamed irritated gingiva.

The pathogenesis of the fusiform bacilli for man was demonstrated by Dicker in 1938. He produced subcutaneous abscesses in guinea pigs and rabbits from which the organism was again isolated. Vincent (1937) believes that metals such as bismuth increase the virulence of the organisms. The bacilli can even be found in the corium of the gingiva after all symptoms have disappeared. Kitchen in 1934 found that an increase of Vincent's organisms followed the lowering of the granular cell count, showing that the presence of polymorphs in the blood is an important factor in the control of Vincent's organisms (re: agranulocytosis).

The communicability of the disease is illustrated by its occurrence in several individuals of the same family, in the inhabitants of one college dormitory or in Service personnel living in barracks. The disease is transmitted through the use of eating and drinking utensils, especially cracked dishware, previously infected, such as are encountered in barracks, aboard ships, restaurants, canteens and taverns.

2. When eating food infected by another person. Many cooks have been found to be a source of infection.
3. By the use of infected cigars, cigarettes, pipes, lead pencils, doorknobs and towels that contain the infection.
4. By kissing and direct contact.

Literature reports various epidemics, although some writers claim that the disease is autogenic. Any investigator dealing with service men living in barracks or aboard ship could not believe that the disease was not contagious. Steam dish washers do much to prevent epidemics.

On most ships examined there was not enough dishware. Some ships had used up their quota of new dishware, two to three months in advance. Consequently, the dishes were used two to three times for the same meal. Cleaning consisted of rinsing under a tap. The examination of the ships was more or less at random, in that ships examined were those tied up at the jetties nearest the Dental Clinic. On these ships, Vincent's Infection was very prevalent, in fact one out of nine had 'trench mouth'.

In the Armed Services, particularly the Navy, many acute cases and subacute cases become chronic due to various reasons.

1. The men do not report to the Dental Officer for fear of being drafted off their ships.
2. The patient has no pain and hence does not appear for treatment.
3. The men lack knowledge of the disease due to ignorance or lack of educational instruction, e.g., in a two-week period, twelve men reported at the Clinic for extractions, unaware of the fact that they had acute Vincent's Infection. This is a common occurrence.
4. The patient is treated by the Sick Bay Attendant or the Medical Officer, but is not sent to the Dental Officer.
6. Many chronic and subacute cases are not diagnosed as such, in fact some cases are not considered 'trench mouth' unless ulceration and soreness are present.

Let us review some of the laboratory and clinical facts proved by various investigators.

1. Eighty to ninety percent of all adults have the Vincent's organisms continuously in the mouth. In fact the writer found the Vincent's organisms present in almost one hundred percent of

adults. This was due to the fact that it was an emergency clinic for sea-going personnel and thus most of the mouths were in poor condition. Routine smears were taken from all mouths of our patients. Smears themselves are not of great diagnostic value because of the above stated fact. *Treponema mucosum* found in deep pockets should not be confused with Vincent's spirillum.

2. When the acute symptoms of Vincent's infection are present, the number of Vincent's organisms increase greatly
3. As the infection clears up, there is a decrease in number of Vincent's organisms and an increase in the other mouth flora, the exact opposite of what occurs when the disease is progressing.
4. The lesions are associated with a lack of proper oral hygiene and areas of local irritation, etc.
5. In the sub acute form, ulceration is confined to the interdental papillae. There is persistent bleeding and often the gingival tissues have the appearance of a mild chronic gingivitis.
6. Systemic and nutritional conditions such as blood dyscrasias, metal poisoning and pellagra which result in a lowered gingival resistance, frequently have Vincent's Infection superimposed.
7. It is not just a coincidence that results substantiate other investigators' claims that the disease is associated with a lowered body resistance. More patients appeared for treatment in the first half of the week than in the latter half possibly due to excessive drinking and smoking over the week-end. Out of one hundred and fifty cases, one hundred and two reported for their first treatment in the first half of the week, while

forty-eight reported in the latter half of the week. The breakdown per day was: Monday—29 cases, Tuesday—32 cases, Wednesday—41 cases, Thursday—18 cases, Friday—21, and Saturday—9 cases.

8. The most prevalent areas are the lower anterior region and upper posterior.

One must keep his mind on the local factors responsible for gingival irritation or inflammation. From experience the following points have been observed, arranged in order of importance.

1. Poor oral hygiene resulting in food stagnation and deposits of calculus.
 2. Traumatic occlusion resulting in severe tissue destruction. Loss of teeth, especially the posterior, result in the closure of the bite and excessive pressure is exerted on the anterior teeth. Marked overbite of the maxillary anterior teeth produce the same effect.
 3. Heavy excessive smoking and drinking. Sixty-six percent of all Vincent's patients smoked from one to two packages per day.
 4. Pyorrheal teeth.
 5. Flaps over third molars, impacted and suppressed wisdom teeth.
 6. Partial dentures that impinge on the tissue. This is common with partials that have single arm clasps or have no rests.
 7. Food impaction caused by open contacts, difference in height of the marginal ridges of adjacent teeth. Malposition and crowding of the teeth and over hanging margins of fillings.
 8. Infected tonsils.
 9. Hypofunction — nonocclusion, unilateral mastication.
 10. Mouth breathing.
- Some of the systemic factors are:

1. Blood dyscrasias such as leukemia, agranulocytosis.
2. Metal poisoning such as mercury or bismuth.
3. Endocrine dysfunction.
4. Debilitating disease.
5. Drug therapy such as dilantin sodium (for epileptics) and aminopyrine compounds.

The nutritional factors are primarily the lack of Vitamin C, D & B Complex especially nicotinic acid.

Rarely is it a single condition acting individually but rather a combination of conditions acting in unison.

For over a period of two years, the writer has used periodontal packs for treatment of Vincent's Infection. At first H. K. Box's periodontal pack was used. It consisted of zinc oxide, tannic acid, kaolin and resin with 2% thymol in eugenol. Excellent results were obtained with it and also with the C.D.C. periodontal pack. However, a pack was desired that would shorten the treatment time, so that sea-going personnel, who were in port for three days, would not have to be drafted ashore. The ease of application of the C.D.C. pack over all other mixtures tried, led the writer to try and combine it with other ingredients for quicker results. Sulphathiazole and sulphanilomide were added without any noticeable benefit. Alphamel ointment was added and a marked improvement in the healing time resulted. Penicillin in lanolin, 250 units per gram up to 2,000 units per gram, was added with good results. Penicillin in alphamel gave the best results. The minimum amount necessary was 2000 units per gram of alphamel. Fifty-nine acute cases were treated with the penicillin in alphamel along with the C.D.C. pack, with excellent results. Cures resulted after thirty-six to forty-eight hours. A few were left on for seventy-two hours, as the patients could not be given appointments sooner. There was only one application of the pack in forty-one of these cases. (See Case Histories). Twenty

thousand units per gram of alphamel is now being used with even better results.

Alphamel ointment (Ayerst) owes its healing properties to the cod liver oil content. Experiments have shown that the growth of streptococci in sterilized and non sterilized cod liver oil ceased after one hour, and that staphylococci under the same condition ceased in six hours. (Abstract J.A.M.A. page 260, Jan. 18, 1936). Cod liver oil stimulates the growth of granulation tissue and of the epithelium (J.A.M.A. page 586, Feb. 15, 1936). It imparts a pleasant odour and with the eugenol counteracts any unpleasant taste, due to the penicillin.

TREATMENT

The treatment consists of packing the interproximal spaces and along the gingival margins with a periodontal pack. The pack consists of the Canadian Dental Corps periodontal pack or Box's pack as the base to which is added about $\frac{1}{2}$ gram of penicillin in alphamel. The liquid is about four drops of 2% thymol in eugenol. The pack is mixed to a thick consistency. The powder is pounded in, rather than spatulated, until the mixture is as thick as putty, otherwise the asbestos fibres of the C.D.C. pack are broken up. A half gram of ointment covers a little more than a dime. This is enough for completely packing one mouth. Larger amounts can be mixed, if other patients are being treated at the same time.

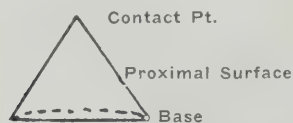
The supra gingival deposits of calculus are removed carefully and if the mouth is abnormally sore, Churchill's iodine and silver nitrate is applied first. If the teeth are in poor condition, a mixture of equal parts of metaphen and 7% chromic acid is applied with the beaks of cotton pliers. This is followed by hydrogen peroxide. The above procedure also lessens the bleeding. If using Box's pack, teeth should be cleaned off with carbon tetrachloride to aid in the adhesion. It will be

found that additional powdered resin must be added when using Box's pack.

APPLICATION OF THE PACK

The pack may be applied by various methods. The easiest and quickest method for the writer was to have the assistant roll up little pellets the size of a small pea. This is then picked up and pressed through to the lingual from the labobuccal either with the finger and / or with a cement instrument, or Ward's carver, until the tissue blanches. It is then locked by pressure on the labobuccal and lingual surfaces, with the thumb and forefinger. Then long round pieces, like a lead pencil, made by rolling the material with one's finger, are packed along the gingival margin at the labiobuccal and lingual surfaces of the dentition. These rolls are pressed apically. Unless this is done, there will remain a little lip or tit of gum tissue on the labiobuccal and lingual, which will prevent the escape of the food from the interproximal spaces. The pack is applied similar to that for a gingivectomy.

If a concavity, or cupped out area, from labial to lingual, persists in the interproximal space due to greater interproximal tissue destruction than elsewhere, e.g., because of periodontal pockets or the cupping out effect of the interproximal papillae from the disease, it must be eliminated. This is a common symptom in chronic and recurrent cases. If this concavity cannot be eliminated by subsequent packing, then gingivectomy must be resorted to. That is, the base of the



triangle formed by the contact point and the proximal sides of the teeth (namely the interproximal gingiva) must be at least flat and preferable convex from labiobuccal to the lingual. This is a very important point, other-

wise food debris will collect and be prevented from escaping.

The pack must remain in place from thirty-six to forty-eight hours. The patient is cautioned to be careful of the pack and not to eat anything tough. Drinking and smoking are contra-indicated even though the gingiva is protected. A mouth wash is used after twenty-four hours, (at which time it is unlikely that the penicillin would be still active,) to keep the mouth rid of food debris, and to replace brushing the teeth. Either the C.D.C. mouth wash or hydrogen peroxide diluted with three parts of water is used four times a day. The consumption of three or four oranges a day is advised as a laxative, also the vitamin mineral content is beneficial in seventeen to twenty percent of the Vincent's cases. Due to the high cost of oranges in Newfoundland, not many patients can afford to follow this advice here.

The patient must be warned about spreading the disease and he must be instructed in the precautions to be taken. Although a mouth wash was not used in all cases, it is a benefit where there are suppressed third molar teeth, gum flaps and decayed broken down teeth.

THE REMOVAL OF TEETH

When there are teeth to remove, the pack is left on preferably for three days. Unless immediate removal is required, the teeth to be extracted are removed at the end of thirty-six to forty-eight hours and the pack is removed the following day. When teeth are removed, about ten grains of a fifty-fifty mixture of sulphathiazole and sulphanilamide in alphamel is placed in the socket.

The only advantage of leaving the pack on for three days is that there is less chance of bleeding on scaling. Otherwise the appearance of the tissue is the same as at the end of two days, when all symptoms of the disease have disappeared. Some acute cases even without the use of the mouth wash

cleared up completely within thirty-six hours. After the removal of the pack, all deposits of calculus are easily removed due to the mechanical action of the pack. A disclosing solution of one part tincture of iodine and five parts of water is applied. The teeth are then cleaned if necessary and all sources of irritation are eliminated.

It is most important that general operative procedures are carried out to restore contact contour and decayed teeth to normal. Marked caries will be a source of reinfection just as much as pyorrheal pockets. The occlusion must be adjusted by occlusal correction wherever possible. Gingivectomy must be done for reasons stated previously, in which case the pack is applied again and left on for five days. Broken down carious teeth, impacted or suppressed and partly erupted third molars and gum flaps should be removed. Pyorrheal pockets must be eliminated. Vincent's superimposed upon periodontoclasia is the most difficult type to cure. All clinical signs disappear, but the organisms will remain at the depth of the pocket not eliminated, from which residues of infection will cause recurrence. The patient must be instructed in the proper methods of oral hygiene including the use of dental floss, interdental stimulators and the correct tooth brushing technique. The patient should be impressed with the fact that he is more susceptible to another attack, and that such will occur if the gum tissue becomes irritated from lack of care of the mouth.

If the patient does not show marked improvement, a blood test should be made at once. R.B. Cell and W.B. Cell counts, sedimentation rate, Kahn and Wasserman tests are made. A blood test should be made at the first appointment if the gingiva is markedly hypertrophied, swollen and bluish or purplish in colour, and / or along with systemic disturbances, such as aching bones, pallor, loss of appetite and weight. If a blood dyscrasia such as leukemia and agranulocytosis, does

not exist, vitamin C and nicotinic acid therapy should be instituted. In the case of a woman, pregnancy may be causing hypertrophied pregnancy gingivitis, with Vincent's Infection superimposed.

It is vitally important that chronic cases of Vincent's Infection be diagnosed as such and thus treated. Many chronic cases are not treated because there is no soreness or ulceration or complaint on the part of the patient. One of the best diagnostic aids in determining a chronic case is that of a keen sense of smell on the part of the dentist. In fact, many acute and chronic cases can be discerned as soon as the patient opens his mouth. The particularly pungent, foul diagnostic odour of Vincent's should not be confused with 'fetor oris' from pyorrheal teeth, considered to be produced by the *trepanema muscosum*. After treating a few cases of Vincent's, there should be no reason for failing to recognize its particular odour. The patient usually has a 'dark brown' taste, on arising in the morning.

The easiest method to determine chronic cases is to expel the material in the interproximal space by pressing a piece of periodontal pack or gutta percha from the labial to the lingual. Then, pick up the exudate forced out on the pledget of cotton and hold it to the nostril. If this material is spread on a glass slide and heated, it will give off an even stronger odour, and, if examined microscopically after staining with carbo methyl violet for five minutes, it will be found to be teaming with the Vincent's organisms.

In the chronic form of Vincent's Infection, the only persistent symptom is that of bleeding. The destruction of the tissue is more advanced and is limited for the most part to the interproximal, while the labiobuccal and lingual tissues remain higher because of less destruction. The gingival changes are those of chronic gingivitis. There is usually an excessive deposition of black hard subgingival and supra-gingival deposits of calcium.

The degree of destruction depends on the duration of the disease, the resistance of the tissue to destruction, and whether the gingiva is soft and spongy or contains more fibrous tissue and also the density of the bony septum.

One must always be on the look out for conditions presenting a picture similar to Vincent's, such as herpetic, mercurial and bismuth stomatitis, leukemia, vitamin deficiency, gingivitis, all of which cause a lowering of the tissue vitality. If the patient doesn't smoke or drink very much and takes fairly good care of his mouth, be on the watch for systemic causes.

RECURRENT ATTACKS

Many patients who have had recurrent attacks of Vincent's Infection were observed to have a hairy brown or black tongue. This is believed by Hirschfeld to be due to the prolonged use of sodium perborate.

When a patient has had recurrent attacks of 'trench mouth' due to irritation from heavy smoking and/or drinking, lack of oral hygiene, traumatic occlusion that cannot be corrected and pyorrheal teeth with the loss of a good deal of supporting tooth structure, then full mouth extractions are advised, after applying the pack to clean up the mouth. Unless this is done, then at a later date when the teeth are extracted, there will not be enough bony ridge to construct stable well-fitting dentures. The writer has observed a number of cases whereby Vincent's Infection caused such marked periodontoclasia after recurrent attacks over four or five years, that the lower ridge was almost flat. It is a distinct disadvantage for a lad in his early twenties to start out with a flat ridge, because as time goes by, it will get worse.

Over a four month period, the writer checked for Vincent's Infection, an average of two thousand Navy ratings a month, entering or leaving this base. Various striking similar facts were observed over this

period. For a three-week period, a record of the following data was made.

Out of thirty consecutive Vincent's cases, over this three week interval, sixty-seven percent previously had 'trench mouth'; some had had it numerous times. Ninety percent of these recurrent cases had traumatic occlusion of the anterior teeth, resulting in periodontoclasia. Where the occlusion could not be corrected by occlusal grinding, and where there were deep pyorrheal pockets with mobility of teeth, the prognosis for permanent recovery was unfavourable. Eighty percent of these thirty cases either did not brush their teeth or claimed to do so once a day. In any case, the oral hygiene was very poor. Two-thirds smoked from one to two packages of cigarettes a day. Only one did not smoke, but he did not clean his teeth and there was a great deal of calculus present. Only three percent took the vitamin pills provided by the Navy.

Personnel arriving from Canada and shore personnel had, on the whole, cleaner and healthier mouths than sea-going personnel. The condition of the mouths of the Royal Navy ratings was generally very poor. This was probably due to the fact that most of the Royal Navy ratings were Newfoundlanders, who are noted for their poor teeth. The Royal Navy ratings, who had Vincent's Infection, were not included in the above data.

CASE HISTORIES

Of seventy-three patients treated over a five-week period, fourteen had sub-acute cases and were treated with drugs, fifty-nine had the penicillin periodontal pack applied. In all, sixty-six packs were applied, an average of 1.12 packs per person. Forty-three were cured by the application of one pack. Seven did not return. Six had the pack applied more than once. Excluding the seven who did not return, and were considered as not

cured, the result was 1.27 applications per person cured. Since that time, nearly all the above patients were examined for relapses at various intervals. Two such relapses occurred; in both cases there was no soreness and the patients admitted that they rarely cleaned their teeth. The pack was applied again. One of the two did not return for its removal, and so can be considered incorrigible. The other was cured and on checking a month later, his mouth was healthy. He was taking proper care of it. Some of the six, who had more than one application of the pack, are included in the individual case histories.

Case Histories which required one or more than one application of the pack to cure.

(a) *Male Patient—age 27*

The patient had an acute case of Vincent's, as a result of wearing two ill-fitting partial dentures, that had single arm clasps without rests. Heavy smoker. Gingiva was very swollen and sore. The patient was advised not to wear his denture again. The mouth was packed for thirty-six hours. On removal of pack, there was very little calculus present. The gingiva was somewhat hypertrophied as a result of the prolonged wearing of the dentures. The pack was re-applied for thirty-six hours resulting in healthy pink gingiva.

(b) *Male Patient—age 30*

This patient had an acute case of Vincent's Infection with spontaneous bleeding from the distal of right seven with a mass of clots. X-rays showed an impacted tooth. Packed mouth for forty-eight hours. Uneventful recovery. Removed the impacted wisdom tooth.

(c) *Male Patient—age 25*

The patient had all the symptoms of acute Vincent's Infection. A great number of Vincent's organisms. The margin of the gum

tissue was bluish black. On questioning, it was found that the patient had been receiving bismuth and mapharsen injections for over the past year. The fortieth and last injection of mapharsen was to be given the following week. Applied packs removed it in forty-eight hours. Removed subgingival deposits of black calculus. All symptoms had disappeared and the gingiva was restored to normal.

(d) *Male Patient—age 23*

Patient six foot two inches tall. Had an acute case of Vincent's Infection confined to the right maxilla and mandible. The gingiva on the left side was healthy. Only a few points of the cusps occluded on the left side. Heavy bite on the right side. Great deal of soreness and spontaneous bleeding of the gingiva with the formation of clots. Patient did not smoke or drink and took good care of his mouth. Fainted at first appointment. A blood test showed the patient to be anaemic, having a R. blood cell count of just four million. Liver was recommended. The mouth was packed for forty-eight hours without obtaining a cure. Mouth was packed again for forty-eight hours and gingiva was still slightly red. Corrected occlusion and re-packed. Completely cured.

Case histories where intramuscular injections were given.

(a) *Male Patient—age 27*

A subacute case that did not respond to local treatment with drugs. No ulcers, but soreness of two interdental papillas. Packed these areas and soreness disappeared. In a week, the patient appeared with ulcers on the mesial and lingual of lower left seven; left six missing. After ten treatments with drugs, and mouth wash, the condition was no better. No calculus present. Bite was normal. Blood test showed a raised W.B. cell and neutrophile

count. Both antrums were cloudy, particularly the right side. Radiograms showed two roots in the antrum. 100,000 units of penicillin were injected. Symptoms disappeared over night. Roots and two wisdom teeth removed. Rapid recovery.

(b) Male Patient—age 21

Had acute Vincent's with marked trismus and pericoronitis of the lower third molars. Saline mouth wash used and 100,000 units of penicillin intramuscularly injected. In twenty-four hours, all symptoms of Vincent's had disappeared. Patient could open his mouth an inch. In three days, the wisdom teeth were removed. Uneventful recovery.

(c) Male Patient—age 34

Had a chronic case of Vincent's. Mouth was packed and in forty-eight hours, the pack was removed. 50,000 units of penicillin were injected and at this time three pyorrheal molars and an impacted wisdom tooth, were removed. Recovery was rapid and uneventful. Gingiva a healthy pink colour.

(d) Male Patient—age 20

Acute case of Vincent's Infection. Wore a single tooth partial without clasps or rests. The mucosa of the palate was markedly hypertrophied due to the denture. The teeth were short and widely spaced so that packing with the pericardial pack was not feasible. Ulceration extended from around each tooth in the maxillae up onto the palate. The gingiva of the lower posterior part of the mouth was inflamed due to deposits of calculus, but the lower anterior region was perfectly normal as there was not any calculus present about these teeth. Penicillin, intramuscularly, was injected

and an oxidizing mouth wash used. 150,000 units of penicillin was used—25,000 units every three hours. At the end of twelve hours, the improvement was remarkable. The swelling and ulceration had disappeared and there was very little bleeding on deep scaling. A ledge of calculus around each maxillary tooth was removed. The hypertrophied mucosa of the palate had lost the fiery red appearance. A bridge was advised. The gingiva had a healthy pink colour on checking at weekly periods.

CONCLUSIONS

1. When greater amounts of penicillin are made available, the ideal treatment will be to combine a penicillin mouth wash with the penicillin periodontal pack for all acute and chronic cases.

2. Sub acute cases would clear up quickly by thorough scaling and prophylaxis along with the use of the penicillin mouth wash, provided no systemic factors were present.

3. Where the gingiva was markedly hypertrophied, it would be advisable to

- (a) have a blood test for systemic causes.

- (b) to institute vitamin therapy, if no blood dyscrasias existed.

4. If the predisposing cause was not the lack of oral hygiene or heavy smoking and/or drinking, systemic disorders or traumatic occlusion should be looked for.

5. Ninety percent of recurrent cases are due to lack of oral hygiene and traumatic occlusion.

6. Penicillin imparts a healthy tone to the gingival tissues, but it is not a cure-all. All predisposing causes must be eliminated for permanent results.

The writer wishes to thank Surg. Lt. John McNeil, R.C.N.V.R. for his help and co-operation in making it possible to use penicillin and also for allowing the use of the laboratory.

He who seeks a faultless friend dies without a friend.—Persian Proverb.

ANNOUNCEMENTS

Joint C.D.A. and O.D.A. Meeting

The joint meeting of the Canadian Dental Association and the Ontario Dental Association will be held at the Royal York Hotel, Toronto, May 27-30.

This is a special effort on the part of Canadian Dentistry to hold a Joint Meeting and it is being made pretty much of a Canadian Convention so will be attended by a great many of our profession across Canada. We also trust that many of our friends in the United States will see their way clear to visit us and to this end we are extending an invitation.

GLENN T. MITTON, Secretary.

Université de Montréal Faculty of Dental Surgery

REFRESHER COURSE

Short Refresher Courses of about two weeks' duration will be held during the year 1946. These courses are offered to the members of the Canadian Dental Corps who wish to take them before resuming their private practice. Applications should be sent to the Dean, Faculty of Oral Surgery, Université de Montréal, 2900 Mount-Royal Boulevard, Montreal 26, Que.

A complete list of instruments and a detailed program of each course will be sent on request.

These courses which will be both didactic and practical will be offered on the following subjects.

PERIODONTOLOGY & DIAGNOSIS

Duration Of The Course: 5 days.

Date Of The Course: January 21 to 25, 1946.

Fees For The Complete Course: \$40.00.

Registration Limited To 5.

A) PERIODONTOLOGY

This course will cover Anatomy, Physiology and Histology of the periodontal tissues; the diagnosis, prognosis and the newest treatment in Periodontology.

B) DIAGNOSIS

The object of this course will be to give the fundamental principles for a good diagnosis.

ROOT SURGERY AND THERAPY

Duration Of The Course: 5½ days.

Date Of The Course: February 11 to 16, 1946.

Fees For The Complete Course: \$50.00.

Registration Limited To 6.

This course will embrace the study of pulp pathology and therapeutic measures for pulp protection, pulpotomy and pulpectomy.

Operative techniques, radiographic interpretation of various types of periapical pathosis, applied dental bacteriology and histopathology will be included.

COMPLETE DENTURES

Duration Of The Course: 9 days.

Date Of The Course: March 4 to 14, 1946.

Fees Of The Complete Course: \$75.00.

Registration Limited To: 10.

This course will cover all the principal phases in clinical practice and laboratory

procedures in complete denture construction and during the course each member of the class will build one set of complete dentures. A simplified method of selecting teeth and setting will also be studied. The Snow or the Hanau articulator and necessary laboratory equipment will be supplied for the use of the class.

ORTHODONTIA

Duration Of The Course: 2 weeks.

Date Of The Course: March 4 to 18, 1946.

Fees For The Complete Course: \$100.00.

Registration: Specialists in orthodontia only, are eligible.

This course will cover the construction and manipulation of the Johnson Twin-arch.

The materials used for the construction of this appliance are not furnished by the University but can be bought at the Dental Depots.

CROWN & BRIDGE WORK

Duration of the Course: 5 days.

Date of the Course: April 1 to 6, 1946.

Fees for the Complete Course: \$100.00.

Registration Limited to: 8.

This course which will be both didactic and practical, will cover the design and construction of various types of fixed restorations. It will include the construction of porcelain and plastic bridges.

All practical work will be made on manikins. Materials and dental engine will be supplied by the Faculty; however, the candidates will use their own handpieces, chisels, discs, burs, contra-angle, plaster bowls, spatula, casting rings, etc.

OPERATIVE DENTISTRY

Duration of the Course: 5½ days.

Date of the Course: April 8 to 13, 1946.

Fees for the Complete Course: \$50.00.

Registration Limited to: 8.

This course will embrace the preparation of cavities, the application of rubber dam, the various types of restorations, the use of radiodontia, the diagnosis and the failures in operative dentistry.

Patients, materials and dental engines will be supplied by the Faculty. The candidates will use their own handpieces, chisels, excavators, clamps, etc.

Minnesota State Dental Association

This Association's annual meeting will be held in the Municipal Auditorium, Saint Paul, Minnesota, February 25-27, 1946. Copies of Preliminary Program will be sent upon request to the Minnesota State Dental Association, 498 Lowry Medical Arts Building, Saint Paul 2, Minnesota.

"Meantime, as National Socialism marches on, we have legislation on the calendar of Congress to impose another billion a year for state medicine and a fifth of a billion a year for federal education. The worker bees are to be further taxed to support the drones. Those who go without to pay their doctor are to be taxed to pay the bills of those who spend six times their average annual doctor's bill for liquor, candy, cosmetics, amusements and gambling."—Smoke Screen by Samuel B. Pettengill.

The Forum

THE MANITOBA MEDICAL SERVICE (M.M.S.)

by A. HOLLENBERG, M. D., Winnipeg, Manitoba

THE prepayment plan of the Manitoba Medical Association was incorporated by Act of Parliament in 1942 for the purpose of supplying either surgical and obstetrical medical attention (Plan A) or total medical service (Plan B) on a prepayment basis. This service began to operate September 1, 1944. The Board consists of fourteen medical practitioners and seven laymen with Dr. E. S. Moorhead as Medical Director. This Service is run on a non-profit basis and is using the set-up of the Manitoba Hospital Service Association (M.H.S.A.) for the enrolment of members, the collection of dues and the disbursement of the funds to the practitioners and other non-medical parties, such as advertising, printing and so on. It is required that only members of the M.H.S.A. can enrol as members of the M.M.S. A monthly fee of \$500.00 at present is paid to the M.H.S.A. by the M.M.S. for acting as its agent in the duties a fore-mentioned.

The M.M.S. has received no government grant or guarantee. It was wholly brought into being by the Manitoba Medical Association with a view to demonstrating to our people that medical coverage can be obtained at a satisfactory premium without government interference and regulation. The financial cost of setting up this service was borne by a joint contribution of the Manitoba College of Physicians and Surgeons, the Manitoba Medical Association and the Winnipeg Medical

Society; and as a final act of good faith nearly all participating practitioners have signed a demand note for \$100.00 in favour of the M.M.S. to cover any contingency in the formative stage of the scheme.

In the beginning, as was the case in the formation of the M.H.S.A., membership was temporarily restricted to residents of Winnipeg. It is hoped that when the plan succeeds in Winnipeg the population of the province as a whole may then be allowed to enrol.

A schedule of fees for the General Practitioner has been formulated and passed by the Manitoba Medical Association which forms the basis of fees to be paid by the M.M.S. This scale of fees is built upon the principle of equitable distribution of funds available from the M.M.S., having regard to the relative value of the work done. This schedule of fees was distributed to every member of the profession in the province and it was generally very favourably regarded. As it is felt that for the first few years there will not be enough money available from the M.M.S. to pay full fees, according to the schedule, these objections seem rather theoretical. Some predict that for the initial period the members of the profession will probably receive 50 to 60% of the schedule of fees for any major work. There is a provision that any one service of \$10.00 or less will be paid in full while any service whose charge is greater than \$10.00

will be prorated at the end of each month according to the amount of money available for distribution after operating expenses have been deducted.

SPECIALISTS

This has caused a great deal of concern to the Board. As there is now no complete panel of specialists, the Board has taken the view that, for the purposes of this scheme, a practitioner shall be a specialist in any field in which he designates. In such a field he will be entitled to a premium (25%) on the general practitioner's fee for the same procedure. A practitioner may name a second field in which he will practise (*e.g.*, Major Specialty, Orthopaedics, Minor Specialty, X-ray) but for the minor specialty he shall receive only those fees paid to the general practitioner. A guiding principle of the M.M.S. is to maintain the practice of medicine as it has been carried on up to now, namely, that as many general practitioners have always done surgery, x-ray, etc., they shall continue to practise as heretofore and receive payment on the general practitioner scale of fees for those procedures. It must be stated that the arrangement with the specialists (*i.e.*, 25% bonus on general practitioner fees) is now in the process of negotiation. The principle that will govern in these negotiations is that, as there is only a limited amount of money available for all the practitioners in the scheme the share of each group or specialty shall bear a fair proportion to the total work done. With tolerance, understanding and reason being shown by all concerned, it will not be long before an amicable agreement is reached on this issue.

At the moment of writing, February 19, 1945, there are on the books of the M.M.S. 1,080 contracts of Plan A (Surgical and Obstetrical); 3,660 contracts of Plan B (Complete Medical Coverage).

The services are to be rendered by the profession in the fulfilment of its

obligation to the people who have taken out contracts, and there are no reservations as to previous illness. The aim is to provide an adequate, first-class service to our people without exceptions and reservations, except where there are existing agencies for treatment set up in our province, *i.e.*, tuberculosis and mental disease. Even in these exceptions payment will be made for the services necessary to diagnose and allocate the case to the proper authority.

No drugs, dental service or nursing service are included in the benefits of the M.M.S. No fees are paid outside the Province except in the case of an accident or an emergency condition or operation.

The panel of doctors of the M.M.S. is open to any qualified medical practitioner of our Province, provided he is a member of the Canadian Medical Association (Manitoba Division) or upon the payment of an annual fee of \$15.00 to the M.M.S. where the practitioner refuses to become a member of the M.M.A. This plan is further commendable in that it allows free choice of doctor by the subscriber and no practitioner is bound to accept a patient whom he does not want. There is no prearranged designation of physician to patient or vice versa.

The premiums per month for the two plans are listed:

<i>Plan A (Surgical and Obstetrics)</i>	
Single	\$.60
Married (whole family) ..	1.75
Sponsored dependant ..	1.15
<i>Plan B (Total Medical Coverage)</i>	
Single	\$1.50
Married (whole family) ..	3.50
Sponsored dependant ..	2.00

As the M.M.S. was primarily set up to cover those people upon whom the financial burden of a major illness would be catastrophic, the profession at large has insisted and the Board has adopted the rule that where the annual income of a single individual is \$1,800 or more and of a married individual is \$2,400 or more, then the fee for any

operation or major medical illness may be arranged between the practitioner and the subscriber before the service is rendered, and the payment received by the medical member from the M.M.S. shall be credited to the personal account of such a subscriber.

It is felt by many that the premiums above mentioned are inadequate to pay for such a service as we offer. The premiums were arrived at by a consideration of our experience in Winnipeg with the Firefighters Club, which has had a prepayment scheme for the past five years, and the premiums charged by an organization similar to the M.M.S. which has been operating

in Detroit, Mich., for the past several years. Time will tell, and the medical profession in Manitoba, without any outside assistance, is to stand the cost of obtaining the experience necessary to arrive at a proper and just premium scale. — *Canadian Med. Assoc. Jour.*, Sept., 1945.

Editor's Note:—Dr. Hollenberg advises that as of September 30, 1945, there were 21,620 people covered by the plan. 90% were under Plan B, which gives a total coverage; 10% were under Plan A, which gives only surgical or obstetrical coverage. The cost per individual per year is \$16.08, and at that figure the doctor receives only 66% of their scale of fees. The cost of operation in the first year was 17.75%. This however, includes the cost of acquisition of business and it should come down considerably in the coming year. 47% of the money goes to specialists, and 53% to general practitioners.

EFFECTIVENESS OF PENICILLIN IN TREATMENT OF VINCENT'S ANGINA

by CAPTAIN BERNARD M. SCHWARTZ, M.C., A.U.S.

Condensed from the Journal of the American Medical Association, July 7, per Dentistry.

FOR this study, only patients with Vincent's angina have been selected because Vincent's infection of the tonsil, although subject to recurrence, is an acute illness and is almost always a primary infection. Where it is not, the underlying cause, such as a blood dyscrasia, is evident. On the other hand, Vincent's gingivitis is much more likely to be a chronic or recurrent illness, often associated with dental abnormalities or faulty nutrition, and its treatment entails proper dental or vitamin therapy as well as antispirochetal measures. True evaluation of chemotherapy for Vincent's gingivitis, therefore, is difficult and a long follow-up period is necessary.

Fourteen cases of Vincent's angina have been treated with penicillin at this hospital. Diagnosis was established by positive clinical and laboratory findings. Clinically the local lesions on the tonsil or pharynx had the following features in varying severity and combination: hyperemia, ulceration, exudation (pseudomembrane), bleeding, characteristic odour, sub - maxillary lymphadenopathy,

oedema and associated mild gingivitis. One patient had a temperature of 101.2° F. (oral). The others either had slight fever (99-100° F.) or were afebrile. Symptoms in every case were pronounced. Pain in severe cases was so intense that solid food was refused. In some instances, the symptoms were out of proportion to the physical findings.

In each case a dried smear of exudate from the lesion was positive for *Borrelia vincenti*. No smear was considered positive unless there was an unequivocal profusion of characteristic spirochetes and fusiform organisms present. In addition, in several cases throat culture was negative for other pathogenic organisms. The differential leukocyte counts revealed no abnormal cells.

Penicillin was injected intramuscularly in each case. The ease with which locally applied penicillin will penetrate to the depths of an exudate-covered ulcer is unknown. Furthermore, parenterally injected penicillin is secreted in the saliva. Thus, when the intramuscular route is employed, the deep portions of the local lesion

will be constantly attacked by penicillin conveyed in the blood stream, while the superficial portions will be continually bathed by the penicillin in the saliva.

The first 2 patients to be treated were given a total of 200,000 units of the sodium salt of penicillin administered in 20,000 unit doses every 3 hours intramuscularly. The response was so satisfactory that all subsequent cases, with 3 exceptions, had the dosage reduced to 100,000 units administered in 20,000 unit doses every 3 hours. The smaller doses given were found to be only temporarily effective in cases of Vincent's gingivitis being observed at about the same time.

The result in each case treated was satisfactory. In every instance subjective discomfort was decidedly alle-

viated in 24 hours and completely eliminated in 48 hours. There was definite improvement within 4 to 6 hours. In every instance the smear which was positive before treatment became negative after treatment. The appearance of the lesions also improved remarkably, although this improvement was not as dramatic as the relief of subjective symptoms and the disappearance of the organisms from the smears. The offensive odour disappeared in 24 hours. The exudate and ulcer required from 1 to 10 days for complete disappearance, depending on the initial severity of the lesion. Simultaneously, adenopathy gradually subsided. When present originally, gingivitis rapidly disappeared. The temperature was invariably normal after 24 hours. No recurrences were observed.

THE AETIOLOGY OF VINCENT'S GINGIVITIS

by SQUADRON LEADER A. C. WILKIE, H.D.D.Edin., B.D.S.N.U.I., R.A.F.

Summary of paper in Br. D. Jour., Feb. 2, 1945.

CONCLUSIONS.

1. It was not possible to infect a human control with exudate from active fuso-spirillary lesions.
2. Some evidence was obtained for the theory that repeated or protracted infection is necessary before pathogenicity manifests itself.
3. Urinary excretion of vitamin C was found to be slightly less in infected than in non-infected individuals. This observation corresponds with findings in other infections.
4. Administration of vitamin C was found to be beneficial in cases shown to be deficient, due to its effect of physiological repair.
5. Vitamin C intake was known to be adequate in the two hundred individuals tested; a fact worthy of note since the tests took place during the third year of the war.

6. Some cases may be influenced either as regards infection, or course of the disease, by a deficiency of vitamin A.
7. Nicotinic acid deficiency is not a common predisposing factor in this country.
8. Infection by the herpes febrilis virus does not import increased susceptibility.
9. Salivary pH in cases of acute ulcerative gingivitis and stomatitis is slightly decreased and the range is slightly increased. The degree of change corresponds to findings in other diseases.
10. Decrease in salivary pH does not contribute toward predisposition to infection; the organisms concerned probably being microaerophilic.
11. The disease occurs equally frequently at all seasons of the year.

"The job for privately practiced dentistry is to show what it can do while it still has the chance."

DENTAL EDUCATION

In a special article entitled "The Testament of a Dean," which appeared in a recent number of the *Lancet*, Lord Moran, President of the Royal College of Physicians, makes some shrewd remarks on medical education which might be equally applicable to dentistry. For instance, he says: "We want boys sent to the medical schools who are educated in the strict sense of that word. Early specialization has done grievous harm; many students cannot write English. Let no boy leave school before eighteen years of age. The last two years at school are worth all the rest: the boy grows like grass after rain.

In the clinical years we are no long-

er dealing with a purely educational problem; we have to train men to practice a craft. Nevertheless, at bottom,, the shaping of the student depends on educational ideals. He must be able to think for himself when he is no longer within our walls. That is the only way of safety, alike for himself and for the public. All the harm that has been done has been due to this idea of protecting the public from the young doctor's ignorance. He will not be made safe by stuffing him with facts. We have to awaken the power to reason, to criticize, to appraise, which lies dormant in most students. If we fail in this, we fail in everything."—N. Z. Dental Jour.—

HOW TO INCREASE THE NUMBER OF QUALIFIED APPLICANTS FOR ENROLMENT IN DENTAL SCHOOLS

by Dr. S. G. Applegate, Prof. of Denture Prosthesis at Univ. of Detroit, School of Dentistry, in Jou of Michigan State Dental Society.

What has been done in the past in the way of stimulating a greater number of qualified applicants to dental schools? Collectively they are:

1. Personal appearances before college and high school groups by representatives of our two Michigan schools.

2. Data presented by the state president in his appearances before component groups.

3. Letters sent out by the University of Michigan Dental School to 450 schools and counsellors throughout Michigan.

4. Posters distributed by the University of Michigan for display in high schools and counsellors throughout to the possibility of dentistry as a profession.

5. The publication of a booklet "Dentistry as a Career" published by the A.D.A.

What could be done, or, maybe, we might even go so far as to say, what should be done:

1. I believe that a constitutional change should be made in our own con-

stitution and by-laws which will provide for a permanent commission, with staggered membership, whose duty it would be to promote dentistry, as a profession.

2. Greater personal efforts on the part of dentists in interesting prospective students in the dental profession.

3. There should be a greater cooperation with the vocational counsellors in the arts, colleges and high schools.

- 4: Greater caution on the part of the profession in statements it makes to the public relative to the practice of dentistry and to its economic possibilities.

5. There should be a greater drive on the part of the profession to interest girls in taking up both dentistry and the study of dental hygiene as a profession.

6. I believe there should be a campaign by component societies to publicize dentistry before the students of each school in their district.

7. A campaign of publicity to acquaint the public of the part dentistry plays in the health picture.

8. There should be more scholarships

and greater financial aid for qualified and deserving students of dentistry.

—*Jour. of Mich. S. Dent. Soc.*—

FLUORINE THERAPY

by Ashley G. Hunter, M.D.S., Australia

Summary of paper in D. Jour. of Australia, Aug. 1945

1. There exists definite proof that fluorine acts to lessen the attack of caries.

2. Some doubt exists as to actual mechanism of this protection afforded teeth from caries. Data available suggests that formation of a relatively insoluble fluor-apatite by direct contact is responsible for caries immunity.

3. Patients in areas of endemic fluorosis exhibit a greater immunity in anterior teeth. Ratio between cavities in molars and anteriors is 4:1. Probable causes:

- (a) Anterior teeth are in freer contact with fluorine-containing water.
- (b) Action of fluorine on teeth which are less susceptible to

caries, the anteriors, is strong enough to inhibit caries, whereas in molars the action is only sufficient to bring about partial immunity.

4. Fluorides used prophylactically within limits of our present knowledge, produce a beneficial effect on caries incidence.

5. Value of additions of fluorides to drinking water supplies is questionable owing to difficulties controlling dosage and possible effects on periodontal membrane.

6. Experimental work on remineralization of dentine opens fields for investigation in practical application in operative dentistry as well as providing valuable data concerning action of fluorides.

THE USE AND ABUSE OF VITAMINS

By L. B. PETT, Ph.D., M.D., Department of National Health and Welfare, Ottawa

Conclusions of paper in Can. Med. Assoc. Jour. May, 1945.

IN ALL cases vitamin concentrates are used properly only as a supplement to efforts at establishing sound dietary habits and the intake of a varied diet of natural foods. There are many abuses, and really very few indications for the use of vitamins. These uses may be grouped under four headings according to the normal processes of assimilation:

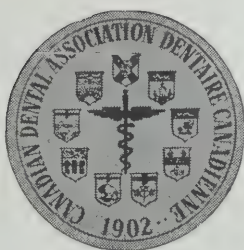
1. *Low intake* of food vitamins due to poverty, fads, ignorance, lack of interest, psychopathia, old age, and the use of special diets such as for infants, and treatment of ulcers, etc.

2. *Absorption* may be affected by intestinal bacteria, dysentery, emesis, cholecystic disease, and mechanical obstruction.

3. *Blood levels and tissue stores* may advantageously be maintained at high levels with vitamin concentrates for antibody formation, and under stresses like pregnancy, operations, hyperpyrexia, and the interfering action of certain drugs including sulphonamides.

4. The storage or excretion of vitamins may be interfered with, as in the excess excretion said to be caused by salicylates.

"By putting off things beyond their proper time duties become irksome obligations."—Faber.



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Editorial

THE UNIVERSITY OF MONTREAL

A few weeks ago the writer had the privilege of visiting the Dental School of the University of Montreal, through the courtesy of the Dean, Dr. Ernest Charron, who took half a day off to show Dr. Bonnell of New Brunswick and myself through this new and handsomely appointed dental centre.

These University buildings cost eleven million dollars and it is planned to campaign for another four million next spring. There are six and one half miles of corridors so it is apparent that Dr. Bonnell and I did not see all of this vast structure in half a day but we did see the dental school thoroughly and were greatly impressed.

The proverb "Train up a child in the way he should go; and when he is old, he will not depart from it," seems to be given special emphasis in this University. Through his whole course, the student is working under ideal conditions. Clean surroundings and personal cleanliness are insisted upon and even in the case of rooms filled with students, everything was spotless. An effort is being made to inculcate in the minds of the students that preventive dentistry is the goal toward which we should all aim. Personal responsibility is also emphasized for undoubtedly a student must be able to think for himself when he is no longer within college walls.



UNIVERSITE DE MONTREAL

It is believed that these principles will be maintained during the student's future practice.

Dr. Charron is counting much upon his idea of group teaching approaching as nearly as possible to the idea of individual teaching. There is no clinging to traditions which too often is a besetting sin. This should mean much to the student as in addition to skill he must bring a knowledge of life into his service, a tolerance for other's opinions, a store house of treasured thoughts.

In the August Journal we published an article by that idealist, Dr. H. D. Grubb of Cleveland containing the following: "Dentistry calls for absolute skill and faultless judgment. It calls for the surgeon's technique in the matter of delicacy and sureness of touch, for the surgeon's keen eyesight and infinite patience. It calls for the artist's pride in composition, colour harmony and proportion. It calls for the engineer's factual knowledge of the nature of materials and the stresses and strains to which these materials can be put. Finally it calls for the intuitive knowledge of the physician to determine the always important physical reserves and idiosyncrasies of the patient. How will each patient react to the particular course laid out for him. How will dental structures stand up under the barrage laid down for them?"

"In addition to bringing technical skill to bear on our problems the modern dentist must also bring knowledge of life and of physiology. He must be able to warn against dangerous and wasteful ways of living. He must counsel the wisdom of a quiet and contented mind in a calm and healthy body.

"Preventive dentistry takes its keynote from preventive medicine, which seeks to forestall disaster rather than find substitutes for lost function. To this end it tries to save as many teeth as possible, to find the normal

for each mouth, and to treat the mouth always as a whole related to health and beauty."

Such is dentistry and far more. The dental school is the power house that equips these young men and women for future service, that starts them off on life's pathway at the speed of a country ox-cart or with the speed of a jet propelled aeroplane.

Dr. Charron is aiming at all of these ideals and so we will expect things of the University of Montreal as we expect from all of our fine Canadian dental schools.

At this time, let us who are in active practice give a well-merited vote of thanks to these teachers in our dental schools. And in the years to come let us give our wholehearted support to these dental institutions, the most important part of our dental life for here the seeds are sown that later bring a harvest good or bad. Too often

"We scatter seeds with careless hand,
And dream we ne'er shall see them more;
But for a thousand years
Their fruit appears,
In weeds that mar the land."

M. H. G

DENTAL CORPS NEWS

AWARDS TO C.D.C. PERSONNEL

The following men have received the Military Division of Most Excellent Order Award:

Lt.-Col. Ernest Fraser Allen
Major Samuel Keneth Cogle
Captain (Acting/Major) Alex Hartnell Gunning
C-97005 WO/II (QMS) Hobart Anzel Davies
D-58078 Sergeant Paul Emile Monchamp
F-87058 L/Cpl. Roland Coffin Spicer
D-106533 Pte. Edward George Brown

The following men have also been honoured:

CANADIAN EFFICIENCY MEDAL—

B-30022 Pte. P. L. Brown

MENTIONED IN DISPATCHES—

Major Terence Judson Sunter Cooke

Major Harry Meyer Jolley

Captain Thomas Harvey Christopher Robb

C-41782 WO/II (QMS) William Ronan Pelow

L-25823 L/Cpl. Norman Richard Jarvis

D-124616 Pte. Albert Henry Ley

NEWS FROM THE PROVINCES

SASKATCHEWAN:

Regina Dental Society

There was an attendance of fifty at a meeting of this Society held in the Hotel Saskatchewan on October 29. President Dr. H. M. Schweitzer, presided.

Dr. L. J. D. Fasken introduced the guest speakers, Drs. Harvey Reid and Don Gullett, President and Secretary of the Canadian Den-

tal Association, who discussed dental problems facing the profession and also Dental Health Legislation.

Dr. U. Garean, President of the Saskatchewan College of Physicians and Surgeons extended greetings from the medical profession. Dr. Lloyd Brown discussed the parallel problem in the medical profession with regard to Health Legislation.

Colonel George Cameron, formerly of the

C.D.C., spoke on some of the problems facing the Department of Veterans' Affairs at this time.

Majors Harvey Robb, Robert Reid and Alex Mentz of Regina and Major V. Schartz of Saskatoon were welcomed back after service overseas.

All the members of the Saskatchewan College of Dental Surgeons were present, also members of the Moose Jaw Dental Society. Colonel Shepherd and officers of 32 Coy. and officers of 38 Coy., C.D.C., were also present.

Dr. J. L. Connell of Prince Albert, President of the Saskatchewan College of Dental Surgeons expressed the thanks of the meeting to the speakers.

"This Society learned with pride of the fine work done by two of its former members now with the Canadian Dental Corps, Lieut.-Col. Terry Cook, and Major Harvey Robb, who were mentioned in despatches. Congratulations boys!"

Saskatoon Dental Society

Dr. Harvey Reid, President of the Canadian Dental Association, and Dr. Don Gullett, the Secretary, visited the Saskatoon Dental Society.

The Saskatoon Society felt highly privileged and honoured by the visit of these two important men. We are proud that we have such men as leaders in our profession, and wish to commend them for the very valuable contribution they made to our profession in giving of their time in this tour of Canada.

Dr. Reid spoke at length on the work carried on by the Executive, with special reference to Health Insurance, Dental Research and joint Dental Conventions.

Dr. Gullett presented some thoughts upon the future of Dentistry choosing as his text "Lifting Our Sights In Dentistry".

Many dentists from outside points were present to meet these distinguished guests.

MANITOBA:

Manitoba Dental Association

This Association held its 49th annual meeting at the Royal Alexandra Hotel in Winnipeg on November 15. The date was occasioned by the itinerary of Dr. Harvey Reid, President, and Dr. Don W. Gullett, Secretary, of

the Canadian Dental Association, who made Winnipeg their last stop on their return to the East after a three weeks visit to Western Canada, speaking at Regina, Lethbridge, Calgary, Vancouver, Edmonton, and Saskatoon. Please note, twice in British Columbia, thrice in Alberta, twice in Saskatchewan, but just once in Manitoba. Why? as Don would say. They stopped at Winnipeg to report what fine large crowds they had at the seven other places. Winnipeg always has at least a 70% showing of its members; 50% anywhere else is considered splendid; but the main reason for stopping at all in Winnipeg (Vancouver please note) was to do some shopping. Just imagine, they could buy in Winnipeg articles unprocureable in Vancouver or Toronto!

Dr. Reid's talk was about some of the realities of the dental situation at the present time in Canada and Dr. Gullett's theme was dental visions of the future which we hope to live to call realities. One of the disquieting realities of the present is the lack of office space all over Canada for dentists returning to private practice after service with the Canadian Dental Corps.

One of the important resolutions adopted at the business meeting of the Association was the approval of the establishment of a Canadian Memorial Scholarship Fund of not less than \$5,000.00 in memory of the members of the profession who lost their lives in the war. It was thought that Manitoba's share of the fund to be contributed would be about \$500.00.

The Registrar's Report showed that the present ratio of dentists to population in Manitoba is one to 2,000 in the Winnipeg area, and one to 8,000 in the rest of the province. If Brandon, Portage la Prairie and Dauphin are excluded, the ratio is one to 10,000. Seventy-eight of Manitoba's dentists enlisted with the Canadian Dental Corps. About 30 of these have not yet returned to practice.

Dental Nurses and Assistants

Dr. M. H. Garvin, Editor of the Journal of the Canadian Dental Association was the guest speaker at the November meeting of the Winnipeg Dental Nurses' and Assistants' Association. He stressed the necessity of

maintaining an open mind in professional matters and in daily life, and pointed out the value of being ready to accept advances in thinking as well as in professional methods.

He spoke of the real need for dental hygienists in our offices and expressed the hope that in the near future it would be made possible to study and practice this branch of dentistry in Canada.

Dr. Garvin reminded the assistants not to neglect their opportunities for teaching the value of cleanliness and health in the oral cavity, especially to the child patient.

A brief business meeting followed at which three minor changes to the constitution were adopted. The usual Christmas charitable donations were voted and it was decided to send individual Christmas parcels to the boys returned from overseas, who would spend Christmas in the Ninette Sanatorium.

Jean McClure.

Dr. Cunningham Returns from Hong Kong

Captain Winston R. Cunningham of Souris, Manitoba, who returned recently from a prisoner-of-war camp at Hong Kong, reports that the Red Cross parcels saved at least fifty per cent of the men's lives at Hong Kong. He removed many gold inlays and gold crowns which the men sold for food.

ONTARIO:

Hamilton Dental Association

Dr. Carl E. Miller of Cleveland was the guest of this Society on the occasion of its opening meeting on October 24. As usual the members convened in the afternoon for a clinical program, adjourned for dinner, and continued in the evening for a discussion of the subject under study. Dr. Miller chose as the theme for the day "Clinical Observations of Amalgam". He made the presentation very interesting and instructive.

On November 21 Dr. J. Harry Ebbs from the staff of the Sick Children's Hospital, Toronto and Dr. Roy G. Ellis, Professor of Operative Dentistry, Faculty of Dentistry, University of Toronto, presented a symposium on "Dental Care for Children." This was a fine



DR. WALLACE BAXTER
President of the Hamilton Dental Association

contribution to further an understanding to a scientific approach with respect to the child dental problem. Publication of these manuscripts will appear in this journal early in the new year.

Dr. Wallace Baxter and his executive have the program for the balance of the year well in hand. Early in December Dr. Dwight C. Ensign, of the Henry Ford Hospital, Michigan, will discuss "Chronic Focal Infection: Its Status Today". On January 16 Major Linghorne and Major MacIntosh of the Canadian Dental Corps will present "Research in Periodontia". Dr. Irvine Ante of the Prosthetic Department of the Faculty of Dentistry, University of Toronto, will be the guest of the Society on February 13 and will present a discussion on "Complete Denture Prosthesis". Dr. J. C. Krantz Jr. from the University of Maryland will discuss "Dental Therapeutics" on March 13. In April a final meeting for the year will be arranged which usually takes the form of a Social function

and which is always a fitting closing for the Association's Academic program for the year. Professional friends in the vicinity of Hamilton are invited to join in the activities of the Society.

Faculty of Dentistry, University of Toronto

Dean Arnold Mason announces registration figures. In the first year there are 184 enrolled of whom 137 are young men recently discharged from the services. In the second year 84 are registered including 34 ex-service men of whom 19 are Ad Eundem students from other universities.

Results of the Fourth Year examinations have been posted. There were five honour students in a class of 56. They are: Messrs. C. E. Aho, R. E. Breen, R. A. Clappison, W. P. J. McManus and D. C. Way. Four students obtained equal standing and share the honour of winning the "J. B. Willmott Scholarship Award". Mr. Robert Clappison won the "Students' Parliament Award". The fifth year, continuing in their accelerated course, began lectures on November 19.

Child Health Centre Suggested for Toronto

In speaking before the Toronto Academy of Dentistry on November 8, Dr. M. A. Cox, Director of the "Out Patient Service of the Sick Children's Hospital" and "Associate in Preventive Dentistry" indicated something of the hopes and aspirations possible from a closer tie-up between the new Children's Hospital, about to be built, and the Faculty of Dentistry. Some time ago the University was approached in the matter of a new Dental Building to provide space for training an increased number of students, for graduate studies, and for additional research facilities. When Dr. Alan Brown, Professor of Paediatrics, heard of this he suggested that a new Dental Building in close proximity to the new Children's Hospital, would have immense possibilities. Dean Mason and members of the Dental Faculty are in accord and believe that such an association would be ideal in rounding out a truly child health centre where dental and medical care could be co-ordinated and additional facilities for research be made

available. A committee with Dr. Vernon Fisk as chairman is negotiating in the matter.

Longevity in Woodstock

Many men have sought the eternal fountain of youth in vain. Ponce de Leon gave his life searching for it. Now it appears that this fountain has been found in Woodstock. A. H. Wilson, 72, still carries on a jewelry business that his father, at the age of 94, handed over to him, while upstairs, Dr. L. Revell, aged 79, continues the dental practice looked after by his father until his 90th year.—Toronto Telegram.

Brant County Dental Society

A meeting of this Society was held in the Brantford Club, October 30, with the President, Dr. F. J. Wentworth presiding.

He extended a welcome to Dr. J. R. Hurton who recently came to Brantford from Portage La Prairie, and to Dr. R. L. Scott who has been retired from the Dental Corps.

The following officers were elected for the coming year: Immediate Past President, Dr. F. J. Wentworth; President, Dr. Hugh F. Smith; Vice-President, Dr. Wilfred G. Hart; Director, Dr. Bradley W. Linscott; Secretary Treasurer, Dr. A. Gregor Smith.

The Toronto Study Club of Dental Technicians

At the Annual Dinner and Business Meeting of the Toronto Study Club of Dental Technicians held in the Royal York Hotel on October 16, officers were elected for the ensuing year: President, W. L. Walker; Vice President, R. C. Brown; Secretary, H. Posen; Recording Secretary, W. Taylor; Treasurer, C. H. Mellish; Executive Committee, D. Rollaston, J. R. Price, C. L. Daly, W. S. Allen, C. E. Spence, and J. E. Washbrook.

The highlight of the meeting was the report presented by C. E. Spence and W. L. Walker who represented the club at the "Good Neighbours Delegate Conference" held in Cleveland, Ohio, on September 22 and 23. Attending this conference which was sponsored by the state dental laboratory guilds of Ohio, Michigan, and Wisconsin, were representatives

from ten state guilds and laboratory associations together with those from Canada.

The Conference was called to discuss affairs of interest to the dental laboratories at large, and the improving of relations between the laboratory and the dentist. Some of the subjects under discussion were:

"Accreditation of dental laboratories as proposed by the prosthetic dental service committee of the American Dental Association."

"The question of control by legislation of dental laboratories and technicians."

"The training and education of dental technicians, including controlled apprenticeship."

These are some of the things which are being given much serious thought not only by the dental laboratory industry but by various state and provincial dental societies.

Responsible members of the laboratory industry in Canada are deeply interested in maintaining a high standard, not only technically but also ethically. We in the Toronto Study Club feel that in the short life of our organized group, we have already accomplished much in raising the standard of the individuals in the group.

W. S. Allen.

Kitchener Affiliated Association

On October 14th, the Kitchener Affiliated Association held a dinner meeting at the Walper House. After the business sessions, Mr. R. W. Ripley, a dental technician, gave an illustrated lecture with practical demonstrations on "Laboratory Hints" at his office. The evening was most beneficial to all members.

London Affiliated Association

London Dental Nurses and Assistants held a very successful meeting at Wong's Cafe on October 10th. Miss Daisy Walker presided over a short business meeting. Several new members and four newlywed members were present. During the evening, each bride received a lovely gift from the Association.

Brantford Affiliated Association

The Brantford Dental Nurses and Assistants held a general meeting on October 18th, in the Temple Building. Five new members

were introduced. Announcement of the opening of the membership drive was made and methods of increasing the treasury were discussed.

Hamilton Affiliated Association

Hamilton Dental Nurses' and Assistants' Association held their opening meeting at Southgate Tearoom. During the evening, the program for the ensuing year was prepared. On October 24th, they were the guests of the Hamilton Dental Society. This meeting was held at the Royal Connaught Hotel with Dr. C. Miller, of Cleveland, as guest speaker.

Windsor Affiliated Association

Mr. Charles Pierce addressed the Windsor Dental Nurses and Assistants on "The Care of Dental Equipment" at their October meeting held at the home of Mrs. Betty Peters. Miss Shirley Graham presided during a business session when plans were made to hold a Rummage Sale. Refreshments were served by the hostess.

RUTH JANKE,

Academy of Dentistry; Toronto

Some seven hundred Toronto and visiting dentists took the day off on November 28 to attend the Academy Winter Clinic. Visitors were present from many points in Western Ontario including Windsor, Sarnia, London, Niagara Falls, Hamilton, Kitchener, Brantford, Woodstock, Owen Sound, Barrie, Orillia and other places. Similarly from Eastern Ontario representatives came from Pembroke, Arnprior, Peterborough, Belleville and Oshawa. Dr. Colton Bliss was chairman for the day and directed a hard working committee of the Academy to complete an excellent one day program. The Dental Nurses Alumnae and the Toronto Dental Nurses and Assistants participated in the general program and also held a session of their own.

Guest clinicians to Toronto for the occasion were: Dr. Frank Giffen, London; Dr. J. F. Cooney, Woodstock; Dr. L. J. Fenech, Windsor; Dr. L. L. Crowley, Windsor; Dr. Carl Moyle, Hamilton; Dr. C. T. Mason, Hamilton; Dr. Harold Learoyd, Sutton West; Dr. J. A. Marshall, Belleville; Major W. S.

McIntosh, Captain H. J. Wilfong and Capt. M. N. Rockman of the C.D.C. In addition to these a number of well known Toronto dentists contributed to the program.

Dr. David A. MacLennan of Timothy Eaton Memorial Church was the luncheon speaker. "Beginner's Luck" was the title of his address which he made humorous, interesting and instructive. He left the impression that beginner's luck might not be luck at all but a wholehearted, fearless pursuit of achievement without too much knowledge of the obstacles in the way. Assets are counted without too much regard to liabilities. "Up to now," the speaker said, "Canadians have had beginners luck, but with the approach of the new so-called 'Atomic Age' Canadians will need more than beginner's luck."

To the casual observer it sometimes appears that a program such as the Winter Clinic is taken as a matter of course. Too often the elaborate preparation of educational presentations of such excellent calibre as provided on this occasion are not fully appreciated. The effort and expense involved is in many cases considerable, yet not exactly a hardship to those making the presentation because they themselves get a thrill of satisfaction from their accomplishment. It is from the vision, talent and generosity of such people in our profession that the general knowledge of dental practice improves and progresses. Undoubtedly there are many well meaning colleagues who did not convey personal appreciation to those who made the clinic a success, who would join the writer in saying, "thank you Colton Bliss" and to your committee for the fine arrangements and through you to all who contributed to the program of the day. It was a great day!

T. R. M.

QUEBEC:

Dr. Percy Vivian Welcomed to McGill

On October 11, the Dental Faculty of McGill University gave a dinner in the Windsor Hotel for Dr. Percy Vivian, the new Head of the Department of Health and Social Medicine at McGill University. Dean A. L. Walsh presided.

Dr. J. C. Meakins, Dean of the Faculty of Medicine of McGill introduced the new professor at this dinner which was attended

by representatives of the University Board of Governors, Senate and leaders in the dental field.

Dr. Vivian stated that there is a great need for the dissemination of accurate and factual information on health to the general public in a way in which they will understand it. Pointing out that the knowledge of health was one of the prime factors in promoting the general well-being of the people and warned that in the field of health, "the public will not stand for failure in leadership."

Dr. Vivian also stated that education in health matters included the need for improved knowledge of bacteriology and the practical application of the science of nutrition and pledged the support of his department for all moves in this direction.

With respect to dentistry, he said that there was much need for dental care, particularly in rural areas. One of the greatest enemies in the field, he pointed out, was malnutrition. While there was need for this care many people were afraid of the cost of treatment. Dr. Vivian, who temporarily retains his post of Minister of Health and Social Welfare in the Ontario Government, stated that more interest was being shown in dental care in Ontario. People from all over isolated Ontario districts came to visit the travelling dental car.

Other speakers were Dean A. L. Walsh, Dean J. C. Meakins, Dr. Harry Thompson of the Canadian Dental Hygiene Council, Dr. Harvey Reid, President of the Canadian Dental Association and Prof. J. S. Dohan of McGill. Dr. Charles W. MacMillan, formerly deputy Minister of Health in New Brunswick and now Assistant Professor of Health and Social Medicine at McGill, was among those at the head table.

Montreal Dental Club

The Twenty-first Annual Fall Clinic of this Club was held at the Mount Royal Hotel, October 24-26 and was again a great tribute to the officers in charge and particularly to the general chairman, Dr. M. L. Donigan. Three hundred and thirty-six dentists registered which was forty-six above the record. Sixty-eight dental nurses registered and about six hundred outside visitors attended the ex-

hibits, bringing the total attendance up to a thousand.

Dr. Swetnam, in his fine president's address, called for full cooperation of all dentists in the work of rehabilitating the returning service dentists. He stated further, that many of these men would desire post-graduate courses but that they would not look with favour on any course that tended to waste their time and that a dental school with foresight would plan an intensive course given by superior teachers. The following statements should also be emphasized: "That veterans should be given priority in purchasing equipment"; "That dentists with extra office space should share the same with returned men, as space was very scarce"; "That patients of former dentists should be urged to return"; "That dental colleges should place greater importance upon dental care of children and preventive dentistry"; "That young people should be encouraged to enter dentistry by making them aware of the opportunities presented in the practice of our profession". Dr. Swetnam stated further that change in dental practice is to be expected no matter what government is in power; that every effort should be made to bring the greatest benefit to all citizens but that in doing so, the status of dentistry should not be lowered and that by all means, we should support our Canadian Dental Association in every possible way.

The speakers at the general session included Dr. H. R. Dean, Dental Director of the United States Public Health Service, Bethesda, Md., who spoke on the subject "Fluorine in Dental Health". He gave a complete review of the epidemiology, laboratory findings, the demonstration study at Grand Rapids and the investigations in respect to topical application. He looked with great favour upon the inclusion of one part per million of fluoride in the water supply of all communities, believing that by so doing, dental caries would be greatly reduced.

Mrs. Wickersham of Chicago, spoke on the subject, "Where to in Dentistry" as seen by an Observer and Analyst in Dental Practice.

At the Wednesday luncheon, Dr. M. L. Donigan made a presentation of a beautiful oil painting to Dr. George Cameron, one of the originators and promoters of the Fall Clinic, and its first chairman. Dr. Cameron

then gave a short address in which he spoke of the early days of the clinic, and gave the reasons for its existence. He was in charge of the clinics for eleven years. Dr. Cameron has now retired from dentistry and farming is his present occupation, but we are sure that his heart will always be with his chosen profession.

At the Thursday luncheon, Dr. Arnold Mitchell, President-elect, presided, and the speaker was Dr. Frank Martin, President of the Ontario Dental Society. Dr. Martin extended the cordial greetings of the Ontario Dental Society and a hearty invitation to attend the joint meeting of the C. D. A. and the O. D. A. which will be held in Toronto next May. Dr. Martin stated that the clinicians for this occasion will be all-Canadian.

At this convention special emphasis was placed upon the limited attendance clinics. The subject of Clinic Number 1 was "Complete Denture Service with Balanced Functional Occlusion" by the Central Nebraska Study Club, in which was shown their interpretation of the writings of Dr. Fred Meyer of Minneapolis. A technicolour film of the entire technique was shown. The subject of Clinic Number 2 was "The Application of Acrylics in Operative Dentistry" by Dr. George A. Coleman, of Philadelphia. He considered shell crown acrylic jackets for the protection of fractured incisors in children, jacket crowns with and without reinforcements, reinforced all acrylic anterior bridges, gold inlay bridges with reinforced acrylic pontics, cervical and incisal inlays by direct method. The subject of Clinic Number 3 was "Precise and Simple Technique for Opening the Bite" by Dr. Carlisle C. Bastian of New York. He showed a technique for those cases where most of the teeth are present and the bite has been closed by the mechanical wearing of the occlusal surfaces and incisal edges. Clinic Number 4 was on "Partial Dentures" by Dr. John S. Dohan of Montreal. He considered the preparation of the mouth, impressions with some of the materials at present available, an accurate method of securing and maintaining centric jaw relations during mouth reconstruction without the aid of special instruments. Clinic Number 5 was on "Local Anaesthesia and Its Relation to Dental Surgery" by Dr. John J. Posner of New York. Clinic Number 6 was

on "The Newer Impression Materials and their Practical Application" by Dr. Theodore Messerman of Cleveland. This clinic presented a review and analysis of the present day status of the newer elastic impression materials such as the alginates and domestic agar compounds. Clinic Number 7 was on "An Amalgam Technique WITHOUT 'Blood, Sweat, Toil or Tears'" by Dr. F. L. Miller of Fredericton, N.B. Clinic Number 8 was on "Endodontia" by Drs. M. B. Archambault, H. H. Pearson and A. D. Richardson of Montreal. They demonstrated the methods acquired by them at the Kellogg Post Graduate Dental School of the University of Michigan and used in their general practice.

Topic discussions were arranged under the following heads:

Subject and Leader:

"Amalgams"—Dr. F. L. Miller.

"Endodontia"—Dr. A. D. Richardson.

"Impression Materials"—Dr. T. Messerman.

"Local Anaesthesia"—Dr. J. J. Posner.

"Office Management"—Mrs. F. R. Wickersham.

"Orthodontia"—Dr. A. W. McClelland.

"Oral Surgery"—Dr. R. E. McMahon.

"Periodontia"—Dr. D. P. Mowry.

Université de Montréal Faculty of Oral Surgery

REFRESHER COURSES

Short Refresher Courses of about two weeks duration will be held during the year 1946. These courses are offered to the Members of the Canadian Dental Corps who wish to take them. Applications should be sent to the Dean, Faculty of Oral Surgery, Université de Montréal, 2900 Mount Royal Boulevard, Montreal 26, Que.

These courses which will be both didactic and practical will be offered in the following subjects:

Minor Oral Surgery and Anaesthesia.

Periodontology and Diagnosis.

Root Surgery and Therapy.

Complete Dentures.

Orthodontia.

Crown and Bridge Work.

Operative Dentistry.

A complete list of instruments and a

detailed program of each course will be sent on request.

DEAN ERNEST CHARRON, Faculty of Dentistry,
University of Montreal, Montreal, Que.

BRITISH COLUMBIA:

Victoria Dental Society

This Society held its first fall meeting on Sept. 17 at the Empress Hotel. The meeting was addressed by Dr. R. L. Pallen of Vancouver, a member of the Board of Governors of the Canadian Dental Association. Dr. Pallen represented British Columbia at the annual meeting of the C.D.A. held in Winnipeg in June.

He gave a comprehensive and interesting report of the meeting, covering the work done by the various committees and the problems confronting the dental profession in Canada. There was a good attendance and keen interest was shown by numerous questions asked by the members and answered by Dr. Pallen.

The impression was gained by those present that the C.D.A. is now better organized to advance the cause of good dentistry for the public and to serve the best interests of the dental profession; thereby meriting the active support of all Canadian dentists.

The members of the Victoria Dental Society were of the opinion that one meeting each year should be devoted entirely to C.D.A. affairs.

Appreciation was expressed of Dr. Pallen's able representation of British Columbia as C.D.A. delegate over a period of years.

New Medical-Dental Building for Victoria

Construction of a modern building in Victoria, especially for doctors and dentists, will be undertaken by a new company, Victoria Medical-Dental Building Company Limited, which was incorporated last September. Present plans call for a building to cost in the neighbourhood of \$300,000. When completed it will contain a small hospital, an operating room for the convenience of the professional men with offices in the building.—JOUR. Commerce, B.C.

ALBERTA:**Southern Alberta Dental Meeting**

Dentists of southern Alberta met in Lethbridge, October 31, to discuss problems of public health and rehabilitation of officers in

the Dental Corps. The meeting was preceded by a trip to the sugar factory at Picture Butte. Drs. Harvey W. Reid and Don W. Gullett, President and Secretary of the C. D. A. and other prominent dental officials from Calgary and Edmonton attended this meeting. Dr. L. T. Allen of Lethbridge acted as Chairman.

EMPIRE NEWS
SOUTH AFRICA:**Protest Against Heavy Taxation of Medical Profession in South Africa**

The following extracts are from a memorandum presented before a meeting of the Northern Transvaal Branch of the Medical Association of South Africa on July 24, 1945, by Dr. B. P. Jubbe. Condensed from Can. Med. Assoc. Jour. Nov. 1945.

It would appear, judging by the exorbitant taxation, that the Minister of Finance and the Cabinet regard medical practice as not being an essential service but superfluous, useful only as a taxable entity. We are classed and taxed as a "trade" while we enjoy neither working hours from 9 to 5, nor half-days, holidays or Sundays; and medical ethics debar us from even forming a trades union.

We, of the younger section, dare not aspire to further degrees for our own betterment, or to specialize, since we are not in a position to make financial provision for postgraduate study; and even if we did specialize, there still remains a mere basic income of £1,500—the highest valuation for skilled professional service.

When we reflect that the official figures of the rise of cost of living for Pretoria published today amount to no less than 39.2% above those of 1938, it is clear that the basic income of £1,500 is actually reduced to a mere £900.

That this plight is of no concern to the

Minister of Finance is only too plain, and that he apparently has no conception of the extent of our duties is obvious. On 3/5/45 the Minister stated to a deputation of the Parliamentary Committee that he could see little difference between the free services of accountants and medical practitioners.

I therefore propose that this Branch strongly urges Federal Council to notify the Minister of Finance at an early date that, as a direct result of the victimizing taxation of the medical profession, the following measures will be adopted by the Medical Association, regard being had to the fact that the medical profession has refrained from raising fees during the whole war period, and the freedom of the profession in England from Excess Profits Duty taxation.

- (a) All professional fees be doubled.
- (b) Since we are taxed as a "trade", the profession will serve the public from 9 to 5 on weekdays and 9 to 1 on Saturdays; Sundays and Public Holidays excluded. Exception will be made in emergencies only.
- (c) As from a date to be fixed by Federal Council all medical practitioners in receipt of part-time salaries be instructed to cease work.

The public to be advised of the change a reasonable period in advance by the Medical Association through the Press.

Periodontoclasia causes the loss of more teeth than caries not because of its prevalence, but because of the general dentist's lack of education and practical knowledge. It is up to him to recognize the disease in its incipient stages, when it is possible to check its progress in one visit, and thus prevent periodontoclasia from becoming a serious menace to the health of the patient.—Bernard S. Chaikin, D.M.D., Boston, Mass., in Dental Items of Interest.

GENERAL NEWS

Teen-Age Caries

by MAURY MASSLER, D.D.S., M.S.,

Director of the Child Research Clinic, University of Illinois, College of Dentistry

Conclusions of paper in Jour. of D. for Children, Third Quarter, 1945

1. A distinct increase in the rate of new carious formations occurs in the early teen ages and decreases markedly thereafter during progress toward maturity.

2. Teen-age caries is a clinical problem. The caries may even become rampant. Then it becomes a serious clinical problem.

3. The incidence of rampant caries is unknown.

4. Rampant caries occurs most frequently during the early teen ages and is peculiarly a disease of this age group. This does not imply that other age groups are immune, but that the incidence is highest during the teen ages.

5. The spurt in teen-age caries seems to coincide with the spurt in linear growth that characterizes the early teen age.

6. Rampant caries is associated far more frequently with the ectomorphic (slender) type than with other body types.

7. Teen-age caries is broadly a constitutional problem rather than simply an endocrine, nutritional or dental problem.

8. The mechanism whereby teen-age caries is produced is unknown.

Streptomycin

Excerpt from Proceedings of the Staff Meetings of the Mayo Clinic, Oct. 31, 1945.

Streptomycin can be administered intravenously, intramuscularly, subcutaneously, intrathecally, orally or by nebulization. The continuous intravenous drip method of administration appears to be the most satisfactory method of maintaining constant concentrations in the blood serums of patients who are receiving streptomycin.

If intermittent methods are employed, it would appear that the substance should be administered at least every three to four hours.

As much as 500,000 units per day have been given by nebulization and by mouth.

Single doses of 50,000 and 100,000 units per day were administered intrathecally for meningitis.

In any of the cases studied, serious and un-

controllable toxic reactions were not encountered following administration of fairly large amounts of streptomycin in single or repeated injections. In some instances, streptomycin has been administered to patients for a considerable time without evidence of toxic reactions.

Scarcity of Office Accommodation

W. P. Luce in *Saturday Night* states that scores of dentists from the services are idle in Vancouver and Victoria unable to secure office space in which to practice. He points out that there are a large number of small communities which lack dentists but that the returned men show little inclination to move into the country. It is suggested that arrangements might be made for some of them to work night shifts.

EDITOR'S NOTE:—*This condition exists in every large centre in Canada and is in part due to Government departments having taken over space which is very suitable for professional offices. This could and should be corrected.*

The question of men not wishing to practice in smaller communities raises a very serious question and one which will become increasingly acute under any form of compulsory health insurance involving dentistry. These smaller towns will have to be served even though dentists are subsidized to practice there.

Correct Food Lengthens Life Span

Statistics show that the greatest length of life is found in those areas where standard of living is high and where dietary habits are most nearly adequate. The length of life of the average male citizens of the United States is now more than fifteen years greater than at the beginning of this century. Comparable increases have been noted in certain other countries but in some areas the life span has remained practically stationary.

According to information by the National Dairy Council, the study of food consumption in different countries furnishes convincing evidence that the diet plays an important part in determining life expectancy. On the basis of prewar figures New Zealand leads with a life expectancy of more than sixty-five years. Australia follows closely with over sixty-three years; and Sweden, the United States, England and Germany follow in order with approximately sixty years or more. These same countries are among the highest consumers of dairy products in the world, with each of them con-

suming annually the equivalent of more than three hundred and fifty quarts of milk *per caput* when all dairy products are taken into account. These nations also use large quantities of meat, eggs, and varying amounts of vegetables and fruit in their national diets.

In Italy the average prewar diet included only the equivalent of one hundred and seven quarts of milk a year, and the life span was only about fifty-four years. In India where the average diet includes practically no dairy foods or protective foods of any kind, the average life span is approximately twenty-seven years.—Review of Chicago D. Soc.

New Institute Formed

The University of Chicago has established, as a part of the division of biological sciences at the university, an institute for applying the results of research in nuclear physics to such problems as cancer, heredity and the aging process. It will be known as the Institute of Radiobiology and Biophysics.

Dental Care for Children Compulsory in Argentina

Dental care for children of school age and adolescence has been made compulsory in Argentina according to a recent press dispatch. Children, on entering school, are required to have a dental examination, the results of which are recorded and kept on file. The examinations are repeated periodically and the parents are notified when the children require dental care, which can be given by the family dentist or without cost in the national dental centres. Parents or teachers who break the law may be penalized, and repeated infraction may be punished with closure of the school or discharge of the teacher.—Jour. A. D. A.

Deduction of Dental Fees

Partly through the efforts of representatives of the Minnesota State Dental Association, the income tax laws of this state allow the taxpayer to deduct from his income, before taxes, the cost of his efforts to preserve his health. Items for dental care can be included. This is a wholesome provision, for it operates to encourage such care. Only one other state has a similar provision in its laws, and it carries a \$150 ceiling.

It is interesting to contrast this with the provision in the federal income tax law. Its provision was announced as an "aid to the common man," but the fact that no deduction may be made unless the sum exceeds 15 per cent of income offers no encouragement to persons of moderate income to undertake expenditures for health care.—North-West Dentistry.

Ringworm

Minnesota Medicine Aug. 1945, is the authority for the statement that the epidemic of scalp ringworm that has been sweeping west across our country has reached Saint Paul. Treatment of this condition is difficult, as it usually requires complete x-ray epilation of the scalp. It has been shown that early detection on a large scale can be done economically by means of the Wood light. Affected children should be segregated, and it should be remembered that moving picture theatre seats and dental chair head rests are possible sources of infection. Both dentists and physicians should be on the alert.—North-West Dentistry.

Missouri Legislature Passes Doctor Prefix Bill

A bill known as the "Doctor Prefix" bill (House Bill 206) has recently been passed by the Missouri State Legislature and signed by Gov. Phil M. Donnelly. The new law will require that a dentist add the degree D.D.S. after his name whenever the word "Doctor" or "Dr." is used before the name on office nameplates, cards, signs and stationery. The law also applies to physicians, osteopaths, veterinarians, chiropractors, chiropodists and any other persons who profess to practice the healing art and who use the prefix "Doctor" or "Dr."

Council of Dental Education Suspends Columbia University

The Council on Dental Education of the American Dental Association has suspended the School of Dental and Oral Surgery of Columbia University, New York City, as a result of the university's action in "integrating" the medical and dental faculties. The action was taken by the Council at its meeting in Chicago, October 19-21.

IN MEMORIAM

Frederick Malcolm Wells, of Montreal, Quebec, aged 74, died November 9 at the Royal Victoria Hospital after a short illness. He was graduated from the University of Pennsylvania, and studied Bacteriology in Germany. Serving in the first Great War he was one of the original officers of the Canadian Grenadier Guards and was connected with the Dental Corps doing research work at the Lister Institute of London, England. He received the F.R.S.M. there.

He was a member of the St. James' Club and attended St. James the Apostle's Church.

Dr. Wells is survived by his widow, a brother and two sisters.

Edmund Wilbert Oliver, of Ottawa, Ontario, aged 76, died November 8 after a long illness. He was graduated from the Royal College of Dental Surgeons of Ontario and practised at Almonte for 20 years before moving to Ottawa in 1920. He continued his practice in Ottawa until 1940 when he retired.

He was a member of the Glebe Curling Club and the Ontario Dental Association. He was a past master of Fidelity Lodge, A.F. and A.M. and a member of Glebe United Church.

Dr. Oliver is survived by his widow, two daughters, two sons and two brothers.

Otto George Alexander Plaxton, of Toronto, Ontario, aged 71, died November 4 at St. Michael's Hospital. Following graduation from the Royal College of Dental Surgeons of Ontario in 1889, he established a practice in Parry Sound where he remained for 20 years. Moving to Toronto,

he practised his profession until recently. For the past 25 years he had been a member of the Toronto curling club. He was keenly interested in sports and was an ardent hunter. Dr. Plaxton was one of the original members of the old Weston Golf Club.

Dr. Plaxton is survived by his widow and three sons.

James Claude Sharpe, of Edmonton, Alberta, aged 62, died October 28. He was graduated from the Baltimore School of Dentistry, practised in his home town of Summerside, P.E.I. for a year before moving west to Neepawa, Manitoba, where he remained for a time before moving to Edmonton.

He appeared to be in good health up to the time of his death and had been exceptionally busy at his office.

Dr. Sharpe is survived by his widow, one daughter and two sisters.

Hon. Kenneth Cattanaach MacDonald, Minister of Agriculture in British Columbia, aged 73, died at his home in Victoria, November 19. He was graduated from the Pennsylvania College of Dental Surgery in 1899, and commenced practice in Grand Forks, British Columbia, later moving to Vernon.

He was always keenly interested in public affairs and entered the provincial legislature in 1916. In 1933 he was called into the cabinet as Minister of Agriculture in which position he gave himself unstintingly in public service.

Dr. MacDonald is survived by his widow and two daughters.

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ALCIDE THIBAUDEAU, D.D.S., A.I.D.O.

516, est, rue Sherbrooke, Montréal.

Editorial

1945

Au moment où chaque lecteur recevra son journal, 1945 aura pratiquement terminé le cycle inexorable de son évolution. Année horrible, s'il en fut une, et dont tous les événements portent à croire que nous en sommes à la période de la Tour de Babel.

Mais pourquoi rappeler tous nos motifs d'inquiétudes? Si nous ne voyons pas venir la paix et la joie de vivre, tant promises par la propagande de nos chefs, nous avons du moins vu diminuer considérablement cette rage universelle qui depuis 5 ans faisait s'entretuer, sans savoir pourquoi, des millions d'êtres humains. C'est déjà quelque chose; remercions en la Providence et prions La d'inspirer ceux qui gouvernent le monde pour qu'a son image ils sachent tirer quelques avantages de cet effreux désastre.

Quant à notre Journal, il ne semble pas se porter trop mal malgré les inquiétudes et les soucis mensuels de notre rédacteur. Ceux qui l'ont lu ne se sont pas trop aperçu des ses misères, et c'est tant mieux.

Un fait cependant est digne de mention. Des confrères de Québec et de Montréal ont montré pour leur journal un intérêt vraiment professionnel et national en faisant de remarquables efforts pour l'aider. Parmi eux se trouvent des jeunes qui dans leurs essais ont prouvé leur culture et la valeur de leur génération.

A tous ces collaborateurs anciens et nouveaux permettez-moi d'offrir mes meilleurs remerciements et mes souhaits les plus sincères pour l'année qui va commencer.

DR. ALCIDE THIBAUDEAU.

Acrylique

Par GUY LEFRANCOIS, B.A., D.D.S.

Monsieur le Président,
Chers Confrères,

Lorsqu'un patient se présentait à nous il y a quelques années, pour un travail de reconstitution quelconque de l'appareil dentaire et que ce patient nous demandait un produit appareillant le plus possible la texture normale de la dent, eh bien, notre substance était toute trouvée, nous avions la porcelaine.

C'était à cette époque ce qu'il y avait de mieux et ce travail était considéré comme une luxueuse oeuvre d'art. Et malgré tout, nous avions entre les mains une substance d'une très grande fragilité qu'il fallait manipuler avec beaucoup de soins car il ne faut pas oublier que durant la cuisson qui demande un four spécial à très haute température, il se produit un retrait d'environ le tiers du volume. Il fallait donc un doigté très délicat et beaucoup de précautions thermiques et dynamiques.

De plus, l'index d'opacité de la porcelaine était loin d'approcher la texture de la dent naturelle, jusqu'au moment où l'on décide d'ajouter de la silice pour lui donner la transparence que l'on rencontre dans presque toutes les dents naturelles.

De cette façon, on améliorait notablement l'esthétique mais, oh malheur, c'était aux dépens de la résistance. En effet, plus on ajoutait de silice, plus on obtenait de transparence, plus on avait un beau produit, mais par contre, cette restauration devenait excessivement fragile.

Aujourd'hui, Messieurs, nous avons l'acrylique, résultat de longues années de recherches et d'expérience, qui vient éliminer la plupart des désavantages de la porcelaine à condition cependant que nous suivions à la lettre une technique basée sur des conditions physiques, chimiques et thermiques sans lesquelles nous ne pouvons obtenir un produit rendant réellement justice à ce matériel qui à mon point de vue est merveilleux.

Je disais, Messieurs, que pour obtenir une belle pièce de céramique il nous fallait ajouter de la silice pour augmenter la transparence, ce qui avait le mauvais effet d'augmenter la fragilité. Avec notre acrylique, nous partons d'une substance transparente, le méthacrylate de méthyl auquel on ajoute certaines substances pour opacifier et certains sels de métaux pour obtenir la couleur désirée.

Ce méthacrylate de méthyl est excessivement résistant et presque incassable si on le met en épaisseur convenable, à n'importe quel degré de transparence.

Pour ce qui est de l'apparence, on peut affirmer que c'est le matériel qui jusqu'à date, approche le plus de la structure de la dent naturelle.

Depuis quelques années, la plupart des dentistes emploient l'acrylique; oui, mais comment l'emploient-ils? Le manipulent-ils en suivant toutes les données scientifiques de cette substance ou simplement ne font-ils au hasard, qu'un mélange de poudre et de liquide dans n'importe quelle condition obtenant de ce fait un produit quelconque bien inférieur à la porcelaine en apparence et en adaptation.

Pour obtenir de l'acrylique le maximum de rendement, tant au point de vue apparence qu'adaptation, il faut à tout prix connaître la matériel avec lequel nous travaillons.

Il faut donc connaître:

- 1° sa structure chimique c'est-à-dire comment on obtient ce produit; de quoi est-il fait;
- 2° ses propriétés physiques;
- 3° comment on doit le manipuler et *pourquoi*;
- 4° les réactions qui se produisent en cours de manipulation.

Alors, Messieurs, voyons ensemble:

- 1° *quelle est la structure chimique de ce matériel et comment on l'obtient.*

D'abord, le terme général de la substance acrylique est employé pour désigner en général tout un groupe de substances résineuses synthétiques. Dans ce groupe, on rencontre les *acrylates* et les *métacrylates* qui sont le résultat de l'éthérification de l'acide acrylique ou de l'acide métacrylique en présence d'alcool.

Celui qui possède les meilleures qualifications pour usage dentaire est le métacrylate de méthyl que l'on obtient en faisant agir de l'acide métacrylique sur l'alcool de méthyl suivant l'équation chimique suivante:



De cette réaction chimique dans ces conditions différentes, on obtient 2 isomères.

- a) le métacrylate de méthyl déjà polymérisé sous forme de petits cristaux transparents dont la formule chimique est:

C16 H26 O6 c'est le polymère.

- b) le métacrylate de méthyl non polymérisé sous forme de liquide limpide dont la formule chimique est:

C5 H8 O2 c'est le monomère.

- 2° *les propriétés physiques.*

- a) *la résistance à l'abrasion:* c'est-à-dire à l'usure mécanique. Il a une très grande résistance à l'action mécanique à moins que cette action ne soit accompagnée d'une température de 200° F. qui est le point de polymérisation du métacrylate de méthyl.

Evidemment, ici, il n'est pas question d'une restauration surplombante car même dans ce cas les métaux les plus durs s'usent.

- b) *dureté:* c'est la plus dure de toutes les substances thermoplastiques connues.
- c) *densité:* c'est le plus léger de tous les produits résineux.
- d) *stabilité:* c'est la plus stable de toutes les substances résineuses.
- e) *conductibilité:* il isole parfaitement c'est-à-dire que nous ne sentons ni le froid ni le chaud.
- f) *ne change pas:* dans des conditions atmosphériques normales.
- g) *effets thermiques:* se ramollit à 257° F. c'est pourquoi il faut bien faire attention quand on le polit. La résine commence à se ramollir à 482° F. et la polymérisation se fait en sens inverse à 822° F. changeant ainsi 90% du polymère solide en monomère liquide.
- h) *au point de vue élasticité probrement dite,* ce matériel est élastique seulement lorsqu'on mélange le monomère au polymère.

Le fait, par exemple, qu'une coiffe résistera au choc n'est pas dû seulement à l'élasticité du matériel mais au fait que les molécules ont plus de jeu entre elles. Ce qui rend la substance beaucoup moins fragile que la porcelaine dont les molécules sont tellement serrées qu'elles n'ont presque pas de jeu entre elles.

- i) *changement de volume:* le retrait de ce matériel est seulement 0.53% à moins

que la polymérisation se fasse sous une pression beaucoup trop considérable, v.g. si on met trop de matériel dans le mouffle.

POLYMERISATION*

Comment se produit-elle? Elle ne se fait pas simultanément dans toute la masse de plastique; mais, elle commence par certains noyaux dispersés ici et là; et les noyaux se multiplient jusqu'à ce que toute la masse soit polymérisée.

A mesure que les noyaux de polymérisation se forment, il se produit des vides créés par le retrait. Ces vides sont comblés par le surplus de matériel dans le mouffle qui lui est sous pression constante. Ceci est une compensation complète du retrait.

DEGRE D'ABSORPTION D'EAU

L'absorption d'eau est une caractéristique naturelle de la matière et cette absorption est en rapport direct avec la porosité, qui elle, est une propriété physique de la matière. Pour ce qui est des dentiers, le degré d'absorption d'eau est de 0.45% mais le méthacrylate de méthyl employé ici à une plus grande densité à cause des substances qu'on y ajoute pour l'opacifier et le colorer; alors, son degré d'absorption est de 0.25%. La seule chose à retenir de ceci, c'est que tout produit d'acrylique doit toujours demeurer dans l'eau jusqu'à ce qu'on le place en bouche.

Pour fabriquer nos travaux, nous avons donc à manipuler une poudre et un liquide.

LA POUDRE

Que contient-elle? C'est un mélange de petites masses sphériques transparentes de méthacrylate de méthyl auquel on ajoute un "filler" c'est-à-dire une substance pour opacifier ces masses transparentes, et des sels de métaux pour obtenir nos différentes couleurs. C'est le polymère dont la formule chimique est $C_{12}H_{26}O_6$. Ce polymère est un ester de méthyl de l'acide méthacrylique résultant de l'action de l'acide méthacrylique sur l'alcool méthacrylique. Cet ester est déjà polymérisé et se présente sous forme de cristaux transparents ressemblant à de petits cristaux de quartz. C'est le polymère dans la poudre.

LE LIQUIDE

C'est le monomère dont la formule est $C_5H_8O_2$, ou le méthacrylate de méthyl non polymérisé. C'est un liquide très limpide, non visqueux, stable à la température de l'appartement, mais très volatile si on élève la température. Il bout à 100.3° centigrade. Sa densité est de 0.945 grammes par cc à 20° centigrade. Ce liquide (monomère) est un solvant de la poudre (polymère) et cependant, agit comme un parfait agent de plasticité si nous suivons une technique bien définie. Ce liquide doit être absolument pur c'est-à-dire ne contenir que des molécules de méthacrylates de méthyl pur sans autres corps chimiques. Quand, à notre polymère, nous ajoutons le monomère pour obtenir une masse plastique, il se produit une réaction de polymérisation c'est-à-dire que le monomère liquide deviendra solide dès que nous le soumettrons à une température élevée entre 168 et 190° F. sous pression.

QUEL EST DONC LE PRINCIPE DE CETTE POLYMERISATION?

Le méthacrylate de méthyl est ordinairement une substance thermo-plastique. Dans l'usage que nous faisons du polymère, nous employons le monomère comme solvant et agent de plasticité. Comme dans toute réaction chimique, il nous faut un catalyseur

*C'est le passage du monomère liquide à l'état solide du polymère dont la formule est un multiple du corps primitif (monomère).

c'est-à-dire un agent qui en quantité très minime déclenche une réaction chimique entre 2 corps; nous employons comme tel ici, la chaleur et l'oxygène qui favoriseront la polymérisation c'est-à-dire la conversion du monomère qui est le méthacrylate de méthyl liquide à l'état de forme solide. Cette polymérisation prend naissance entre 168 et 190° F. C'est cette réaction que nous appelons polymérisation, car selon la définition même, les polymères sont des corps qui ont la même composition centésimale mais dont les formules et les poids moléculaires sont multiples les uns des autres, par exemple, le benzène (C6 H6) est un polymère de l'acétylène (C2 H2).

Donc ici, cette polymérisation consiste à faire passer le polymère qui est du méthacrylate de méthyl de l'état liquide à l'état solide.

Etant donné que nous avons dans notre poudre des cristaux de méthacrylate de méthyl plus certaines substances pour l'opacifier, plus certains sels de métaux pour donner la couleur, quand notre réaction de polymérisation s'effectuera, les substances ainsi ajoutées resteront emprisonnées dans les espaces interglobulaires de la masse polymérique solide.

Etant donné que le monomère est un liquide très volatile, spécialement si on élève la température, il nous faudra prendre certaines précautions pour éviter des défauts de polymérisation qui causeraient la porosité de notre produit.

Comment peut se produire cette porosité? de plusieurs façons.

- 1° Si on élève trop rapidement la température durant la polymérisation, les molécules de monomères encore non polymérisés se volatiliseront et laisseront des vides.
- 2° Si on met trop de monomères, il y aura déséquilibre avec les molécules de polymères ce qui aura pour résultat de former des porosités par l'excès des molécules de monomères polymérisés, et de plus, la couleur de notre acrylique sera changée.
- 3° Si on ne met pas assez d'acrylique dans notre moufle, la masse plastique ne sera pas sous une pression constante et certaines molécules de monomères se volatiliseront en laissant des bulles d'air et de plus, les vides créés par la formation des noyaux de polymérisation ne pourront pas être comblés ajoutant ainsi à la porosité.
- 4° La polymérisation étant une réaction exothermique c'est-à-dire qui dégage de la chaleur en proportion de la masse, si la masse est trop considérable il faudra monter la température beaucoup moins rapidement; autrement, il y aura volatilisation de certaines molécules de monomères causant ainsi de la porosité.
- 5° Il faut toujours bien faire attention pour que le moufle soit constamment recouvert d'eau à la cuisson. Autrement, si toute l'eau s'évapore, la température s'élèvera à un tel point qu'elle amènera la déshydratation complète et la masse pourra même brûler.

Maintenant que nous possédons les connaissances scientifiques de ce matériel, nous allons l'appliquer théoriquement à la fabrication d'une coiffe d'acrylique.

La technique que je donne ici est celle que j'ai moi-même employée depuis 5 ans et qui me donne réellement de bons résultats.

Si je vous donne cette méthode ce n'est pas que je veuille éliminer les autres, non Messieurs, car c'est le résultat qui compte avant tout. Alors voici comment je procède:

Causerie donnée devant la Société dentaire de Montréal, mardi, le 23 octobre 1945.

Technique pour la préparation d'une coiffe.

- 1° Préparation classique de la pile avec épaulement tout le tour.

2° Prendre deux impressions:

- a) ajuster deux douilles de cuivre;
- b) dans ces deux douilles, prendre l'impression de la pile avec du "stents";
- c) laisser la première douille en position et prendre l'impression par-dessus avec du "solvite"; enlever l'impression, et la douille sortira en exacte position dans le "solvite";
- d) laisser la seconde douille de côté et couler un modèle d'amalgame dedans;
- e) prendre une impression de la pile et des dents avoisinantes en employant uniquement du "solvite".

N.B.—Nous employons le "solvite" parce que, une fois le modèle coulé, il se sépare facilement en plaçant le "solvite" dans l'eau bouillante.

- 3° a) couler du "diolite" dans la *première impression*, à la fois dans la douille et le "solvite".
- b) dans la *deuxième impression* (celle prise uniquement avec le "solvite"), placer le modèle d'amalgame en exact position dans son nid et couler de la pierre artificielle dans le reste de l'impression, après avoir vaséliné la tige pour assurer l'enlèvement facile du modèle d'amalgame.
- 4° Enlever les modèles des impressions de "solvite" en les plaçant dans l'eau bouillante.
- 5° Placer ces modèles sur l'articulateur.
- 6° *Sur le modèle de "diolite"* enlever l'excès tout au tour de l'épaulement de façon à ce que ces épaulements soient bien dégagés.
- 7° Mettre de la cire sur la pile de "diolite" et sculpter la couronne sans enlever cette cire.

N.B.—a) On emploie de préférence la cire blanche parce que la cire colorée laisse des traces de teinture qui pourrait modifier la couleur de l'acrylique.

N.B.—b) Avec cette technique, les contacts mésial et distal seront respectés et la coiffe aura une parfaite adaptation car elle sera pressée directement sur un duplicata parfait de la pile en couche.

- 8° Quand la couronne est complètement sculptée en cire, couper le modèle de façon à ce qu'il entre parfaitement dans le moufle et le placer dans la première partie du moufle en employant du plâtre.

N.B.—a) Le plâtre favorisera l'enlèvement du modèle une fois la coiffe finie.

N.B.—b) Submerger le modèle de façon à ce que toute la face labiale ainsi que le bord incisif soient complètement exposés.

- 9° Appliquer un séparateur tel que savon, vernis, etc.

10° Placer le cercle de la seconde partie du moufle et couler de la pierre artificielle pure en employant un petit pinceau pour éviter les bulles d'air.

11° Quand la pierre est parfaitement durcie, placer le moufle dans l'eau chaude durant quelques minutes.

12° Fondre la cire avec de l'eau chaude propre.

N.B.—Ne jamais employer de chloroforme mais seulement du benzine pour dissoudre les particules restantes de cire.

- 13° a) Placer durant 15 minutes, la partie inférieure du moufle dans une solution de silicate de soude à 10% à laquelle est ajouté de l'"aerosol".

N.B.—Pour préparer cette solution, prendre 3 onces de silicate de soude (Merk gravité 1.380), ajouter 30 onces d'eau et 1 cuiller à thé d'"aerosol" 1/1000. Ceci aura pour effet d'obturer les pores du modèle.

- 13° b) Maintenant, avec un pinceau, induire le modèle d'une solution de silicate de soude à 50% (Merk gravité 1.380). Laisser agir pendant 5 minutes et ensuite enlever l'excès avec un pinceau; rincer à l'eau froide et assécher minutieusement.
- Ceci servira à sceller les pores du modèle et agira comme séparateur.
- 14° a) Mélanger les poudres d'acrylique (métacrylate de méthyl) qui donneront la couleur gingivale.
- b) Ajouter le liquide (Monomère) jusqu'à ce que vous obteniez l'état de sable mouillé (à ce moment, chaque molécule de poudre est saturée par une molécule de liquide). Ensuite, ajouter une seule goutte quelle que soit la quantité de poudre que vous ayez.
- N.B.—a) Cette goutte donnera au mélange l'aspect d'une masse mobile.
- N.B.—b) Si vous ajoutiez plus qu'une goutte, vous changeriez la couleur de votre acrylique.
- 14° c) Fermer le bocal durant 3 minutes afin de permettre la saturation parfaite de chaque molécule de poudre par le liquide.
- d) Malaxer durant une minute pour obtenir une masse crémeuse de couleur uniforme.
- e) Maintenant placer cette substance dans la première partie du mouffle.
- 15° Placer une feuille de cellophane hydrophile mouillée sur cette première partie du mouffle et le fermer doucement en le plaçant sous une petite presse à ressort compensateur.
- Placer le tout dans l'eau chaude durant 2 minutes.
- 16° Ouvrir le mouffle, enlever l'excès et presser encore.
- 17° Si l'apparence, la couleur et enfin tout est parfait, fermer à nouveau le mouffle et le laisser sous pression durant 5 minutes dans l'eau chaude.
- 18° a) Avec une lame de rasoir, couper le bord incisif en forme conique à partir du centre;
- b) Malaxer la poudre pour obtenir la couleur incisive transparente;
- c) Ajouter du liquide jusqu'à l'état de sable mouillé;
- d) Ajouter *une seule* goutte;
- e) Fermer le bocal durant 3 minutes, malaxer, et placer sur la partie coupée en forme conique.
- 19° Fermer le mouffle pour un test en employant la presse à ressort, ouvrir, enlever l'excès et le remettre sous presse durant 5 minutes, dans l'eau chaude.
- 20° Si vous avez une obturation, des marques de décalcification, ou des lignes plus soutenues à reproduire,
- a) tracer ces marques dans l'acrylique avec une lame de rasoir;
- b) mettre la poudre de couleur appropriée dans ces fissures, enlever l'excès de poudre avec un pinceau;
- c) ajouter une goutte de liquide;
- d) placer une feuille humide de cellophane hydrophile et fermer le mouffle pour un test sous presse.
- 21° Quand vous êtes parfaitement satisfait,
- a) placer le mouffle sous presse dans l'eau à la température de l'appartement;
- b) monter graduellement la température jusqu'à 1680 à 190° (prendre environ 45 minutes pour atteindre ce point);
- c) laisser à cette température pour environ 20 minutes;

- d) alors, placer le mouffle encore sous presse, dans l'eau froide courante, durant au moins 15 minutes.
 - 22° a) Ouvrir le mouffle, enlever le modèle de "diolite", enlever la coiffe et nettoyer méticuleusement l'intérieur à l'aide de curettes et même de fraises;
 - b) Placer la coiffe dans une solution saturée de citrate de soude durant environ 30 minutes.
Ceci servira à dissoudre les particules de plâtre et de "solvite" adhérentes à la coiffe.
 - 23° Placer la coiffe sur le modèle d'amalgame, enlever l'excès, contrôler l'articulation, les contacts, la polir avec pierres, disques de caoutchouc; la lustrer avec une brosse molle à prophylaxie en employant du blanc de céruse ou tout autre substance et maintenant, elle est prête à être placée en bouche.
 - 24° La placer en bouche contrôler l'adaptation, les contacts, l'occlusion, l'articulation.
 - 25° La cimenter en bouche avec un ciment transparent de silicate-oxyphosphate (Oxsilit).
- N.B.—L'Oxsilit est le seul ciment à employer pour cimenter tous nos travaux - l'acrylique parce qu'il est le seul à posséder toutes les qualités requises,
- a) il est résistant;
 - b) transparent;
 - c) insoluble; (il durcit même au contact de la salive);
 - d) il a un temps de prise relativement lent (il prend environ 10 minutes à durcir).

Université De Montréal Faculté De Chirurgie Dentaire

COURS DE PERFECTIONNEMENT

Les cours de perfectionnement dont nous avons déjà commencé l'inauguration en octobre dernier sont maintenant organisés. Nous en donnons ci-dessous la liste complète, ainsi que la date à laquelle ils auront lieu.

Comme le nombre des inscriptions à ces cours sera dans la plupart des cas limité à 10, nous demandons à tous ceux qui veulent les suivre de s'inscrire le plus tôt possible en écrivant au Docteur Ernest Charron, Doyen de la Faculté de Chirurgie dentaire, à l'Université de Montréal, 2900 boulevard du Mont-Royal, Montréal 26, Qué.

Une liste complète des instruments à apporter ainsi que le programme détaillé des cours seront envoyés à tous ceux qui en feront la demande.

PERIODONTIE & DIAGNOSTIC

Durée Du Cours: 5 jours.

Date Du Cours: du 21 janvier au 25 janvier 1946.

Frais D'inscription: \$40.00.

Inscription Limitée A 5.

(A) PERIODONTIE

Ce cours portera sur l'anatomic physiologique et histologique de la dent et des tissus péri-dentaires, le diagnostic des maladies péri-dentaires, l'occlusion trauma-

tique, le pronostic ainsi que sur les traitements les plus nouveaux employés en périodontie.

(B) DIAGNOSTIC

L'objet de ce cours est de donner les principes fondamentaux et la manière de faire un diagnostic sûr. Il comprendra l'étude de l'histoire des cas à traiter et de l'interprétation qu'il faudra donner aux méthodes généralement employées dans l'examen des patients.

TRAITEMENT DE CANAUX

Durée Du Cours: 5½ jours.

Date Du Cours: du 11 février au 16 février 1946.

Frais D'inscription: \$50.00.

Inscription Limitée A 6.

Ce cours à la fois théorique et pratique, mettra en valeur les nouvelles méthodes thérapeutiques employées dans les traitements de canaux. Il portera sur l'anatomie physiologique et histologique de la dent, l'étude des changements pathologiques de la pulpe, la réaction des tissus de la dent aux irritations, la bactériologie, la manière de faire des prélèvements, la pulpectomie, le blanchiment des dents, l'obturation des canaux et l'apectomie. Toutes les opérations se feront sur des patients spécialement choisis dans la clinique centrale de la Faculté.

PROTHESE COMPLETE

Durée Du Cours: 9 jours.

Date Du Cours: du 4 mars au 14 mars 1946.

Frais D'inscription: \$75.00.

Inscription Limitée A 10.

Ce cours, à la fois théorique et pratique, portera sur l'empreinte, la confection des modèles, la confection des porte-empreintes, la prise d'empreintes, le coulage des modèles, l'adaptation des plaques-bases et boudins de cire, l'enregistrement au moyen de l'arc facial, l'occlusion centrique, la propulsion, le choix des dents, le montage des dents, l'essayage, la mise en moufle, et l'ajustement final. Une méthode simplifiée pour le choix et le montage des dents sera également enseignée.

Les articulateurs Snow ou Hanau seront fournis par la Faculté ainsi que tout le matériel employé dans la fabrication des appareils de prothèse. Un patient sera assigné à chaque dentiste qui suivra ce cours.

ORTHODONTIE

Durée Du Cours: 2 semaines.

Date Du Cours: du 4 mars au 18 mars 1946.

Frais D'inscription: \$100.00.

Ce cours de perfectionnement ne s'adresse qu'aux spécialistes en orthodontie et comprend l'étude de l'un des appareils les plus nouveaux employés dans la pratique courante. Il portera sur l'appareil "Twin-arch" de Johnson. Le mode d'action ainsi que la fabrication de cet appareil seront étudiés à fond.

L'Université ne fournissant pas le matériel employé pour la fabrication de cet appareil, le candidat devra se procurer dans les magasins dentaires tout ce dont il aura besoin.

COURONNES & PONTS

Durée Du Cours: 5 jours.

Date Du Cours: du 1er avril au 6 avril 1945.

Frais D'inscription: \$100.00.

Inscription Limitée A 8.

Ce cours portera sur les incrustations et leurs applications dans la fabrication des ponts. Il comprendra l'étude théorique et pratique de la préparation des piles, de la couronne $\frac{3}{4}$, de la préparation de la cire, de la mise en revêtement et de la coulée.

Le pont fait au moyen de substances acryliques sera étudié à fond et toutes les phases de sa préparation telles que les empreintes, les modèles, la préparation de la cire, l'ajustement des timbres et de la barre d'appui, le soudage, le bourrage et la cuisson seront démontrés et pratiqués par les candidats sur des mannequins mis à leur disposition par la Faculté.

Des tours électriques ainsi que tout le matériel nécessaire seront fournis par la Faculté, à l'exception des pièces à main, contre-angles, disques à séparer, fraises, ciseaux, bol à plâtre, spatules, anneaux à couler et bases.

DENTISTERIE OPERATOIRE

Durée Du Cours: 5½ jours.

Date Du Cours: du 8 avril au 13 avril 1946.

Frais D'inscription: \$50.00.

Inscription Limitée A 8.

Ce cours, à la fois théorique et pratique, portera sur l'anatomie et physiologie buccales en rapport avec la dentisterie opératoire, la préparation des cavités, la mise en place de la digue, les substances obturatrices (incrustations, silicates, amalgames) les revêtements, l'examen et le diagnostic, la radiographie et son emploi en dentisterie opératoire et la cause des échecs en dentisterie opératoire.

Les tours électriques ainsi que tout le matériel nécessaire seront fournis par la Faculté à l'exception des pièces à main, ciseaux à émail, curettes, crampons, etc.

Acryliques

Questions et Réponses,

par le Dr MAURICE STERN

Question:

Est-il plus facile de construire une incrustation en acrylique ou en or?

Réponse:

Sans doute il ne s'agit pas ici d'une incrustation ordinaire en acrylique faite en un tour de main, pas plus que d'une incrustation en or du type ourant des débuts.

La technique qu'employait de la cendre, de l'amiant et du plâtre comme revêtement et le bol à plâtre plein de papier humide comme machine à couler, ont fait que les autorités de la profession dentaire appelaient ces incrustations "un îlot dans une mer de ciment". Une bonne technique exige plus de maîtrise pour l'incrustation en acrylique car en plus d'avoir les mêmes exigences pour la préparation de la forme, elle a celles du contrôle de la couleur.

Question:

Pour une incrustation en acrylique, préparez-vous la cavité de la même manière que pour l'or?

Réponse:

Non, l'acrylique en général exige une plus grande masse. Il faut éviter les bandes trop étroites, les marges trop minces et busautées. La cavité doit être du type mortaise ou boîte. Les cavités composées M.O. . . . D.O. ou M.O.D. devraient avoir des coulisses guides et des parois gingivales inclinées.

Question:

Doit-on préférer la coiffe en acrylique à une vaste incrustation?

Réponse:

La coiffe est préférable à l'incrustation trop large si cette dernière laisse des parois trop faibles et sans protection et ou la forme de rétention est insuffisante.

Question:

Dans quel cas l'incrustation en or est-elle préférable à l'autre?

Réponse:

Quand l'incrustation doit servir de culée à un pont ou l'esthétique requiert la combinaison des deux substances.

Question:

Qu'entend-on par rétention par friction?

Réponse:

On appelle rétention par friction celle qui existe entre un appareil amovible et sa dent d'attachement comme dans le cas de l'incrustation ou de la coiffe avant le cimentage. La rétention par friction comporte le mouvement; en conséquence s'en servir dans une cavité ou avec une coiffe est une erreur, parce que le déplacement y indique qu'une force a brisé la tension de la couche de ciment. Tout dépend du parallélisme des parois de la cavité et de sa reproduction dans la restauration. L'inertie est maintenue par la force de résistance du ciment.

Question:

Pour une incrustation en acrylique doit-on exiger des honoraires plus élevés? Si oui pourquoi?

Réponse:

Les honoraires pour services professionnels doivent être en proportion de l'habileté professionnelle requise par ces services. Or comme il faut plus d'adresse dans le cas de l'acrylique puisqu'il faut satisfaire aux exigences de l'esthétique, il y a donc double service rendu; reproduction de la forme et celle de la couleur, donc on doit exiger des honoraires plus élevés.

Question:

Dans les incrustations, y-a-t-il avantage à combiner l'or et l'acrylique?

Réponse:

Quand on a besoin d'une plus grande force dans la pièce de rétention d'une incrustation de la classe IV, on doit employer la combinaison des deux substances. C'est aussi le cas dans les incrustations culées ou l'esthétique requiert de l'acrylique et la force de l'or.

Toute question doit être adressée à

DR. MAURICE N. STERN,
114-06 Queens Blvd., Forest Hills, N.Y.

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